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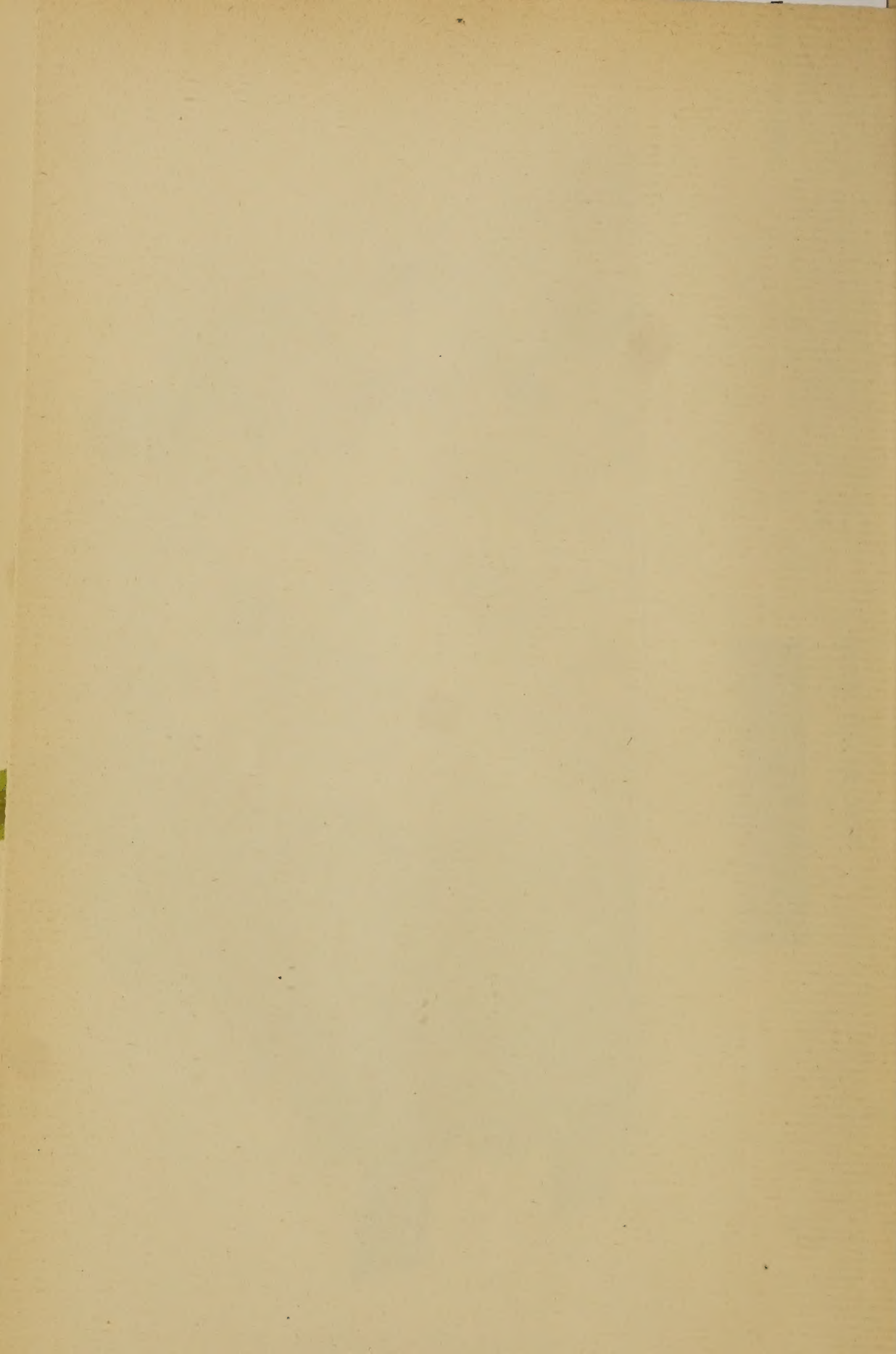
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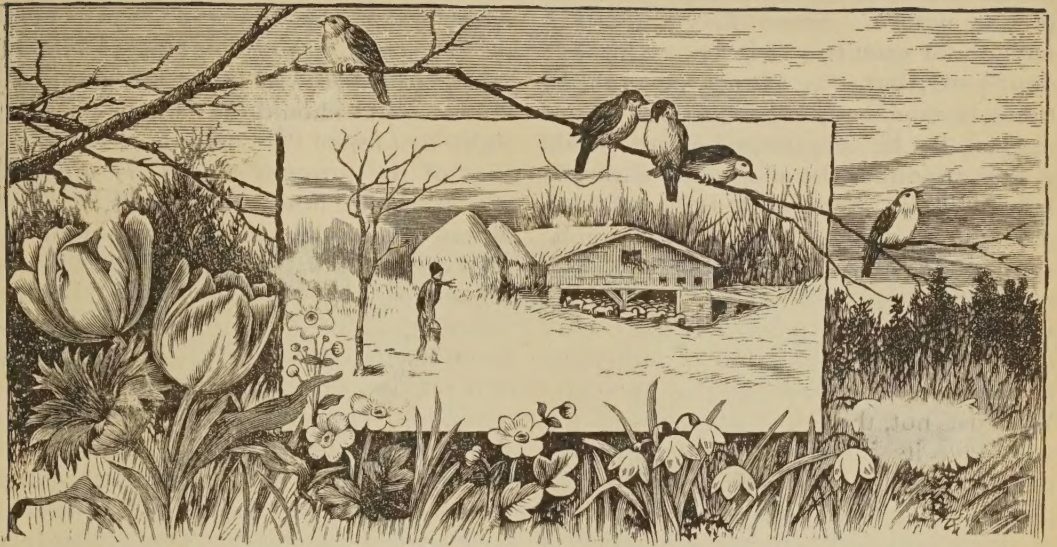
ZONAL PELARGONIUMS  
1 IMOGEN. 2 QUEEN OF THE BELGIANS











FEBRUARY, 1888.

THE HORTICULTURAL spirit with its best inspirations sensibly imbues the most refined and cultivated minds, and pervades, in a measure, the most advanced and progressive communities. Few people of refinement in this country are to be found who do not, in some way, exhibit a taste for flowers, handsome plants, beautiful trees, well planted grounds and neatly kept yards. Most of them are also practically engaged in the art of horticulture in some form, from the care of a pet plant to the support of a well kept garden with thousands of feet of glass and the choicest of exotics and native plants. Ladies, especially, take to plant-growing in the house, because naturally they are so situated that they can give the plants the necessary attention, though many gentlemen who are confined more or less closely to offices, become very expert in raising plants. Others exhibit their gardening taste by means of smooth lawns and beautiful trees and shrubs, and other amateurs are more especially interested in fine fruit and culinary vegetables. But in whatever direction particular tastes may develop the art, in each there results a pleasure of high order, and, what is very gratifying, too, this pleasure is not confined to the worker himself, but is extended in a less degree to all who may see the effects of his operations. That the

love of horticulture pervades our people far more than many may imagine is evinced not only by the numerous journals devoted to the art, but from the fact that almost every daily and weekly paper published in the country has much, from time to time, on the subject, and more especially that such popular magazines as *Harper's* and the *Century* embellish their pages not infrequently with the best specimens of engravings of flowers, trees and cultivated grounds, in illustration of the writings of popular horticulturists. While all this is true of horticulture in our midst, still we do not regard the public standard in this matter a high one. We are doing well and are progressing. How can we advance? That which is so beneficent should be widely employed cannot be questioned. It beautifies our homes, it attracts us to our gardens, and gives us hours of quiet pleasure, refreshing to both mind and body. How can we best instill the love of gardening into the young, and how, as communities, can we best give expression to it? The horticultural advance to be made at the present time, which would probably be most beneficial, especially in country villages, is to go outside of our individual premises and to take more interest in the streets, the school grounds, the churchyards, the cemeteries, the public squares or parks, the railway stations,



grounds of public buildings, and others of this nature. Some may think it is enough for each to sweep before his own door-yard; but this cannot be true, for there is manifestly a public duty in this respect to be discharged if we would give horticulture the scope that naturally belongs to it. Now, what is everybody's duty is nobody's, and unless some public spirited persons will take the lead it is evident nothing will be done. Is it necessary to bring forward here the mercenary motive of increased value of individual real property to enforce this thought? We trust not, though it may go where it will have its influence. How are these improvements to be made? In the first place, they are to be made in the minds of those who desire them: a number of persons should be interested, the more the better, but some one must first think about them, desire them and determine to work for them, and must interest others in the subject. Let one thing be undertaken at a time, and that one which

in most cases will elicit the greatest sympathy and aid will be the improvement of the school grounds. This should be nicely furnished with grass, any disagreeable objects should be screened from sight by proper tree planting, the margins of the grounds should be supplied with trees and flowering shrubs, and the fences, when not hidden from sight by the latter should be covered with flowering vines. The ornamentation of the school grounds in this manner will commend itself to the public, and will not be difficult or expensive, if properly attempted. The village improvement society, as the club may be called, can next turn its attention to something else, and before many years have elapsed it will have wrought wonders. This is a society in which all may join, men, women and youths, and many pleasant social gatherings may be held by its members, at some of which the small sums of money needed may be obtained by the pleasant devices the ladies so well understand.

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### A NEGLECTED NATIVE PLANT.

While so many native plants worthy of attention are neglected by our cultivators, it seems almost necessary to make an apology for bringing one so conspicuously into view. But those who are acquainted with the False Mitrewort, *Tiarrella cordifolia*, and have stood in admiration over it in its woodland home in springtime, will not think it strange that it should receive an introduction to plant growers generally. This little hardy perennial which grows in rocky, open woods, and in openings and borders of woods and shrubs in the Northern and Eastern States, we have found to be capable of successful cultivation in the garden, in fact, nothing is found to thrive more easily. For several years we have had it standing where it received a little shade from a Grape vine. In spring the soil about it was dug and afterward the weeds were kept down, and this is all the care it had. But it has never failed to reappear in spring, and in due time to send up its racemes of pure white flowers. These last in bloom from two to four weeks, coming usually about the middle of May and lasting into June. The spikes are about a foot in height,

springing out of a mass of handsome foliage, and bearing in great abundance little fringy, snow-white flowers. The whole appearance is well illustrated in the engraving herewith, which has been prepared from one given in the *London Garden*, with the name of Foam Flower, in connection with which the writer therein says:

"It is a strange fact that while many plants of doubtful value are widely distributed in gardens, some real treasures, for no apparent reason, are overlooked. Such has been the fate of the lovely little Foam Flower, and though it is a perfectly hardy plant of rapid increase, flourishing in almost any soil and position, and has been in our botanic gardens for one hundred and fifty years, it is only now that it is becoming known. It is a plant of great beauty both of leaf and flower; the little starry flowers are creamy white, the buds delicately tinged with pink, a good mass of them seen a few yards off having a close likeness to a wreath of foam. The young leaves are of a tender green, daintily spotted and veined with deep red, while the older ones at the base of the plant are of a rich



red-bronze. Whether planted in rock garden or border it is a beautiful and delightful plant. All the care it needs is division every two years, the plants being at their best the second year after division. It is a valuable plant to pot in autumn, and force from a cold-frame in early spring."

is also signified by its botanical name, *Tiarella*. To be sure, our two leading authorities in this country, GRAY and WOOD, are not agreed in the use of the last name, Bishop's Cap, for this plant, WOOD calling it so, and Dr. GRAY applying the name to a related plant, *Mitella diphylla*. But there are sufficiently good



TIARELLA CORDIFOLIA.

In the matter of forcing we have had no experience. That it is necessary to divide the plant every two years we have not found to be the case, but, as before stated, it will remain in good condition a number of years. We regret to see that our transatlantic neighbors are trying to fix another name on this plant, which is already sufficiently well indicated by the names False Mitrewort, and Bishop's Cap, appropriately applied because of the resemblance of its capsule or seed-vessel to a bishop's head gear, and which

reasons, which need not be presented here, why it should be dropped in connection with the latter plant and applied exclusively to the former, and we hope this may be done in the volume in which the descriptions of these plants will appear of the partly finished great work of Dr. GRAY, *The Flora of North America*, in which both the common and the botanical names are given. The changing of names and giving new and fanciful names to plants is doing much to encumber and confuse horticultural nomenclature.



## NEW VARIETIES OF GERANIUMS.

Variation, to a limited extent, among seedling plants gives rise to a great diversity found in cultivation and allows us to modify their qualities more or less in accordance with our desires. Having obtained a seedling with desirable characteristics we are able also, by breeding in and in, to fix its peculiar qualities until they can be reproduced with great fidelity in its progeny. In this way all the improved varieties of Wheat, Oats, Barley, Rye, Peas, Beans, culinary vegetables of different kinds, and annual and perennial flowering plants are originated. The tendency to variation in seedling plants is greatly increased when fertilization is effected between so-called species, technically known as hybridizing. In this case the progeny show great extremes of diversity and in many of their features. In a less degree the cross-fertilization of plants of the same species, but which have marked differences, will give progeny of many diverse forms. Because the variation is so great in such cases, some horticulturists have assumed that the propagator who cross-fertilizes or hybridizes has no control over the result; that no amount of skill in bringing together of individuals will produce a desired issue. It is true that the hybridizer cannot produce with certainty what he desires, but the qualities of the parent plants will certainly be transmitted to the offspring, one showing some peculiar quality more prominently, and another some other one, and yet in a multitude of seedlings that may be produced in this manner some traces of the parentage will be visible in each. In a large family the children may show great diversity to each other, yet in each one can be traced the lineaments of the parents. The actual work of those engaged in cross fertilizing and hybridizing plants shows that they not infrequently reach results that are very nearly, if not entirely, what they have desired and expected. Some of the finest varieties of many kinds of plants have been produced in this way, and intelligent originators of new flowers and fruits, as a rule, proceed in this manner. This subject is capable of great amplification, but it is one so well understood it is not necessary here. A well known horticulturist in a journal

of recent issue has most inconsiderately made the astounding statement that, in the case of plants, "parents have no power to transmit" their characters through their seeds. In this case, of course, vegetation ceases with the life of the individuals, and the only possible way of retaining vegetable life on the globe will be by careful propagation by cuttings and layers of such plants as man may have under control. Of course, such a statement is unworthy of careful refutation, and is only now mentioned to show how easily one may run into error who carelessly generalizes from a few data or misinterprets a few facts without modestly and patiently sitting as a learner at the feet of Nature. These observations have been more directly induced by the varieties of Geraniums shown in the colored plate of this number. The white variety, Queen of the Belgians, has a large flower, circular in form, as near perfect in this respect as the most critical florist can demand, firm in substance, and of a pure white which under no circumstances changes to pink, a fault which most of the white varieties exhibit as their flowers fade or are exposed to strong light. It is a free-bloomer and the truss is large and well supported above the foliage. This variety is valuable both for bedding and for pot culture. Well grown specimen plants of it are unequalled for exhibition.

Imogen has a flower of fine form, and of a shade of salmon which is very pleasing and different from that of any other sort. It will be noticed that the eye is of a deeper color, in fact, approaching scarlet. The truss is large and the plant blooms freely and abundantly. These new varieties are of recent introduction, and in themselves illustrate how great is the tendency to variation in cultivated plants, and how much nearer it is possible to arrive at a fixed standard of a plant when the end is kept constantly in view. To obtain a white flower with the form and substance and purity of color of Queen of the Belgians has been the aim and desire of florists for years, and, behold, now we are gratified with the sight. From all the salmon colored varieties that have gone before, in Imogen there is something different and pleasing and good in all points.



## CULTURE AND PROTECTION OF CHRYSANTHEMUMS.

Among hardy plants none better repay care and attention than the Chrysanthemum. Hardy in this latitude in dry soils with slight protection, of the easiest possible culture yet giving scope to highest cultural skill, growing with great vigor, readily responding to generous treatment, and subject to few insect enemies easily controlled, they give at the dull season, when the garden is otherwise bare, a wealth of bloom of greatest diversity in size, shape and color. Varieties are being multiplied in increasing numbers, and to the pleasure of cultivation is added that of yearly acquiring new forms. Amateurs who have not already done so should add at least a few "mums" to their gardens. The formless, characterless flowers, ordinarily seen at the florists' give a very faint idea of the flower as well grown. Being, as an amateur, often asked to give cultural points, I have thought a frank record of a season's work might be of interest to a wide circle.

My object in culture is to secure, with least possible attention and effort, the largest number of good blooms, well finished and colored. Without giving any hard and fast rules, I have found the following points essential to production of good blooms:

1st. Freedom from artificial heat, except for a few days when cuttings may require striking and later the slight heat necessary to protect blooms. 2d. Growth to single stems. 3d. Once started into growth they must never suffer a check, and they must have no root disturbance. 4th. They should be judiciously disbudded. Details of culture will vary according to soil, aspect, latitude, etc. On my heavy red clay soil my operations are as will be now described.

As soon as the garden can be spaded up, about the first of May usually with us, the young plants are set out where they are to bloom, in double rows, one and a half to two feet apart, and three feet apart in the rows. It is well to alternate the plants in the double rows, so that the north row will not be more shaded than necessary. My rows run east and west. In planting no manure is used broadcast, but to each plant a good spadeful of perfectly rotted horse manure

and a handful of bonedust is well incorporated with the soil before setting each plant. This is rather a solid dose, but most varieties do well in it. Some weak growing kinds will show "faintness" when excessive moisture dissolves the food too rapidly, and those should be replanted in fresh loam with a little bonedust, and fed as they require with weak manure water. If it is not feasible to grow plants where they are to bloom, and potted plants cannot have the daily attention which they positively require, probably the best plan is that suggested by Mr. JOHN THORPE, to plant in paper pots made of strawboard (ten inches in diameter is a good size) cut to proper size and pasted together at the edges and dipped in lime water and alum. In setting these a board should be placed under each. Plants in these require the minimum of attention, and probably suffer less by removal than grown in any other way yet devised.

During a normal season my plants require watering very seldom, and as long as they are growing steadily with short joints and show no signs of flagging, little attention is given beyond frequent spraying from the hose, which I think helps them to break more freely, as they will naturally sooner or later, and more or less freely according to variety. Unless requiring a dwarf plant for some special purpose I never "stop" or "top" my plants. Sometimes the black lice make an appearance, but quickly disappear if an inch or so of tobacco stems are strewn around the plants. White mildew also appears after a cool rain, affecting mostly exposed plants, but is suppressed by a dusting of sulphur. Black mildew is the most unwelcome visitor, seeming to come from the soil. During a hot, wet spell it will run up a plant in a most alarming way. There seems to be no remedy known for this, though I think a spraying of a solution of one-quarter ounce of sulphide of potassium to a gallon of water checked its spread in some cases, perhaps vigor of plants may have been the principal factor.

About the end of July the plantation will probably need a mulch of manure, indicated by leaves becoming lighter and perhaps yellow. The "seamy" side of



Mum growing is staking and tying. The plants are very heavy usually, and stems, though thick, are very brittle, making them liable to be snapped off by a sudden gust of wind. The labor of staking may be obviated by planting strong posts

perience with varieties is very necessary to judicious disbudding, as the object should be to secure all the good flowers that a plant of a certain variety, in a certain condition, is able to perfect.

In a general way, it may be said that



A GREENHOUSE OF CHRYSANTHEMUMS.

between the rows say ten feet apart, and stretching galvanized wire between them, to which plants may be secured. But tying is unavoidable and never ceasing.

About the first week in September the buds will begin to appear, and the season's labor will be made or marred by the disbudding, which must be done at once. With the point of a penknife all surplus buds are quickly snapped off, care being taken not to injure remaining ones. Ex-

Chinese incurved kinds will carry very few good blooms, and should be kept to few breaks and be very severely disbudded, while more latitude can be allowed with the more improved Japanese varieties. The "cup hunter" is generally a "single bloomer," and grows his plants to three stems at most, and same number of flowers, and has even been known to spend the season on one bouncing specimen. I pursue the con-



servative, and to me more satisfactory, course of allowing all natural, strong breaks to grow, and disbudding to a single bud on a stem, removing, as far as possible, all buds in the axils of the leaves. This is the general plan, though there is an occasional variety which will perfect fine flowers from almost all its buds. As soon as the buds commence to swell the plants must have

in front, fastening a wide strip on house at eight feet and laying sash across, or in absence of sash, using frames 3x6 feet covered with roofing felt. On very cold nights an awning may be dropped down the front. In such a shelter all but the late varieties will finish blooming in this latitude, and provided plants are kept dry, as they may be if grown in position, no anxiety need be felt for their safety.



TENT USED FOR SHELTERING CHRYSANTHEMUMS.

frequent waterings with weak manure water, taking care, of course, as with all plants, that roots are moist before such watering. Any manure containing ammonia will answer. Their preference is for sheep manure, which is rich, soluble, very effective and safe. Guano, sulphate ammonia and strong fertilizers are very dangerous for amateur's use. Liquid manuring, weak and often, may be continued until flowers are pretty well expanded. As soon as color commences to show, plants should be protected to keep off wet and frosts, which are due about that time.

Not taking into account cold green-houses, the best place for a small collection is under the south lee of a dwelling. A shelter is quickly run up by making a frame of scantling, say six feet

A somewhat extensive collection requiring more room, I was led, this year, to experiment with a tent shelter, being led to this choice by the facility with which it could be stored while out of service, taking up only a few square feet of space, while lumber and sash of a temporary house would make a cumbersome and unsightly pile. The tent has proved such a success that I have no hesitation in recommending it for such a purpose. Mine is eighteen by thirty feet ground area, fourteen feet ridge and six feet walls. Roof supported by two masts and a ridge pole twelve feet long, slopes toward sides and ends, and is made of eight and one-half ounce sail cloth properly ribbed and bound with rope. The walls are of standard drilling and fastened to roof, under a foot wide curtain, by



snap hooks, allowing them to be readily taken down, or they can be reefed up; the open space under the curtain provides effectual ventilation. The walls are held at bottom by pegs, and all is held in place by regular guys, etc., as in army tents. It was pitched over the growing plantation without difficulty, and has proved entirely efficient, plants showing no signs of check, blooms of good color and apparently as good as if exposed to sunlight.

The heating has been done by oil stoves, and while it has been efficient, it is a troublesome and make-shift arrangement. Oil stoves are a great care, and

unless kept very clean are apt to smoke, and smoke means smut on flowers—a subject on which I could speak feelingly. With three small stoves (nine four-inch burners) the temperature was steadily kept 16° above outside. While it is possible to warm such a tent with oil, candor compels me to say that the trouble is too great. For a very small amount a small heater could be sunk in one corner, with smoke stack and stake hole outside, and with a zinc gas pipe flow and return around the inner wall of tent, the flowers would be perfectly safe until the latest had finished blooming.

JOHN N. GERARD, *Elizabeth, N.J.*

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### SOME QUEBEC APPLES.

The French Canadians never, until the present century, had any great amount of intercourse with the people of New England. Living isolated from all the rest of the world, neglected and finally given up by their mother country, they became a people segregated from all other white races, and “flocking by themselves” to an almost unexampled degree. They raised but little fruit of any kind, and the only Apple of Canada which has made any name for itself abroad is the Fameuse, (*anglicé*, Famous,) which was, perhaps, so named as much because it was the one Apple that could be successfully grown upon the banks of the St. Lawrence, as on account of its beauty, its delicate, peculiar flavor, and its striking whiteness of flesh, which has given it the alternative name of Pomme de Neige, or Snow Apple.

I have often been called upon to answer the inquiry whether there is more than one kind of Fameuse. This matter has been a good deal discussed in Canada. The French discriminate between the Fameuse Rouge (red) and the Fameuse Barré, (striped,) but as the amount of color depends a good deal upon soil, exposure and season, and there is no other generally agreed distinction between the two, this is not regarded as an established fact. But, for myself, after giving a good deal of attention to the subject, I am much inclined to say that there are not only two, but many Fameuses, perhaps mounting even into hundreds. As it is grown quite or almost

exclusively in a vast number of orchards, large and small, the seedlings, not being subject to admixture, come almost or quite true. When they do not differ perceptibly, they are accounted as Fameuse, and only when there is a clear, though not always a large, difference, as in the Cabane du Chien, (Dog House,) is a distinct name assigned. Of these named seedlings of Fameuse, there is a considerable number. As a rule, there is no positive assurance of their having been grown from Fameuse seeds, and consequently there is a chance for doubt in nearly all cases. Yet when we consider that among the French, until quite recently, the Fameuse was almost the only Apple grown, one may feel pretty confident that a Canadian seedling which resembles Fameuse in one or more of its marked characteristics, did spring from a Fameuse seed.

St. Lawrence. This Apple is quite well known in many parts of the United States. It is fully double the size of Fameuse, a greenish Apple, nearly covered with broad, irregular, bright red stripes. It is not so good a keeper as Fameuse, hardly lasting over October, even in Canada, but it has the soft, white flesh, and a closely similar, yet not identical, flavor. Grown south of Canada, it does not seem to maintain its quality, or to commend itself greatly to growers; but in its season it is decidedly the most abundant Apple in the Montreal market, and brings a good price. The tree is as hardy as Fameuse, and it is a vigorous



grower, but the fruit buds are more tender, and the crop is very small after a severe winter.

Canada Baldwin. I do not think that Canadians generally regard this Apple as a Fameuse seedling. The size is the same, the color a lighter red, the flesh less purely white, and the flavor quite distinct. It is the best keeper of any Canadian Apple, and this alone has led to its being called "Baldwin," to which variety it has not the least resemblance. When in full eating it has a fine, mellow flesh, and though it has none of the peculiar Fameuse quality, it is still of a like type—fine and delicate, though fuller flavored. The tree is hardy and productive, but does best on a heavy soil. On a light one, though still thrifty and productive, the tree is apt to be much injured by bark-killing on the southwest side in a variable and open winter. On such soils it should be top-worked on some variety not so affected. Season, all winter.

Fameuse Sucreé. This is an admitted Fameuse seedling, somewhat larger than its parent, more oblate, of a darker, rosewood red, with flesh white, but often deeply tinged with red. Its flavor is most remarkable, being both sweet and sour, like Strawberries and cream. J. J. THOMAS says of it, page 509, edition 1885: "Rich red, very good; a handsome and excellent dessert Apple." Season, September and October.

St. Hilaire, (Cabane du Chien.) Tree hardy as Fameuse, bears about as young, does not spot so much. Fruit rather longer than Fameuse, and so like it that it has been used to "top" barrels of that variety. Distinguishable by a minute dotting of red around the basin, by its firmer and more acid flesh, and by its being a better keeper by a month or more.

Decarie. When well grown, this is one of the handsomest of Apples. It is large, oblong conic, somewhat ribbed, of a uniform dark red, with a heavy blue-white bloom with gray dots. Flesh whitish, firm, juicy, with a distinct Quince flavor, rendering it a very superior culinary and canning Apple. Season, September. Tree thrifty, long lived, a strong, upright grower.

McIntosh Red. This Apple, grown well, on a suitable soil, is well entitled to

be called, as it has been, a "glorified Fameuse," being of much the same form and color, though darker, with the same white flesh and a similar though richer and fuller flavor. It is a much better keeper, while it is of more than double size. It wants a rich, valley soil to show its merits fully. On higher and dryer land it sometimes is little, if any, larger than its parent. It keeps about with the Wealthy, and the tree is quite hardy, but the fruit, like the Fameuse and all its seedlings, is more apt to spot.

The multiplicity of seedling Apples, of more or less value, known to exist in the Province of Quebec, has led the Montreal Horticultural Society to make a collection of them, which constituted a part of the Society's exhibition in 1883. This collection was only from three Counties, Beauharnois, Chateauguay and Jacques Cartier. The Rev. ROBERT HAMILTON, who was charged with making it, says: "There is an immense number of seedlings in the neighborhood of Beauharnois and Chateauguay, occasionally several hundred on a farm. Frequently an orchard is almost wholly of one type. In one it is Reinette, in another Calville, in still another something between Fameuse and St. Lawrence." This illustrates the remark made above, in regard to the "coming true" of seedlings from Canada orchards, which are so often of one variety. The same state of things occurs in Russia, and is likely to exist in any cold region where so very few kinds are found which will endure the severity of the winters. The best of these few is chosen and planted exclusively, where profit is the chief consideration. The Society favored me with a share of these cions, from which some vigorous trees have been grown, and will be planted in my test orchard, where I now have growing nearly a hundred varieties of Russian, North German, Swedish and Polish Apples.

Of this exhibit of Quebec seedlings it is to be said that they were chiefly of the Fameuse type, generally of medium size and above, some quite large, almost invariably of fine color and quality, equal to Fameuse in its best points, with, in many cases, an indescribable flavor or aroma superadded. The season extends from early fall to spring. The only serious faults in Quebec Apples,



as a class, are the too general tendency to spot, and a lack of thorough, iron-clad hardiness against winter's cold. There are, however, exceptions in both of these

particulars, and there is great cause to hope for some very valuable sorts from this collection.

T. H. HOSKINS, M. D., *Newport, Vt*

### NATURE'S GARDEN.

The years fly rapidly; the winter has only well begun before indications of the coming spring are seen; the seedsmen's catalogues, bright with chromo-lithography and wood engravings, are here, and as we turn their glowing pages beneath the lamplight, while the drifts are piling out of doors, with what visions of floral wealth to be evolved from magic packets of seeds or roots do we fill the coming summer. The light that never was on sea or land shines upon our prospective flower borders; the floods, drouths, frosts, insects, and the total depravity of things in general that have clipped the wings of our success in the past are far away and too shadowy to be of much account; we almost believe, whatever may have been our failures in former years, that the coming season will atone for them all. We may be a little sadder, by and bye, but not much wiser; the seedsman has only to bait his hook with a new catalogue with a fresh chromo on the cover, to catch us again. After all, we would hardly wish it otherwise; our imaginary garden is a most delightful possession all through the winter; the coming of the seed package is an agreeable event, and when planting time has finally arrived we are let down very gently. Most of the seeds will start, and if the little plants die afterward, they do not all die at once. Many will live to flower, and we shall delight in them, some of them may be new to us, and we watch their growth with interest. But when nature goes into the wild flower business, our little patch of earth, more remarkable, perhaps, for vacancies than anything else, looks a little slim, at least, this is so if located in the midst of fields and forests. It is probable that the indifference of farmers to flower-growing, so greatly lamented by florists and seedsmen, arises in part from nature's floral abundance, just as the prevalence of wild Strawberries, Blackberries, etc., checks the cultivation of the garden varieties of these species.

When we, of the Atlantic slope, think of acres of bloom aside from Clovers and Daisies, we are likely to recall what we have been told of the flower fields of California. Many of us have yet to learn what the Spring Beauty, *Claytonia Virginica*, can do in this way. Here is a broad forest full of great Maples and Beeches, leafless as yet. The sunlight lies everywhere, and far as the eye can reach between the gray trunks, a pink snow seems to have covered the dead leaves, and the lazy breeze is loaded with fragrance. It is impossible to walk in any direction without treading upon the delicate red-lined blossoms; the Spring Beauty is a white flower with fine crimson lines, which give the pink tint seen from a distance. Here is one plant of it, with bright crimson flowers, as if the red lines had covered the whole surface, and flowers have been seen whose petals were almost divided into two parts, one white and one red, so easy is it for plants to vary.

The very first Spring Beauties seem more to ask our sympathy for their misfortunes than to command our admiration, so pale and pinched and miserable are they, they seem to have become old before they were young. Here, however, they are of splendid growth, of many tints, but all bright, and fresh and graceful. A few days ago the walker here floundered in snow, to-day there is a floral triumph, all the more notable because it will soon be faded.

And what a world of graceful beauty and fragrance uncloses with the Sugar Maples' bells. These same Spring Beauty woods can do wonders in this way, some years, for the Maple has bearing years, like the Apple trees. A large, spreading tree of Sugar Maple, near my door, became an immense peacock fan, last year, great, dark eyes appearing all over it, caused, apparently, by the great length of pedicels, a unique specimen among Maples.

And what a wave of sweetness as the light wind comes your way, laden with the fragrance of a few millions of these



flowers. Climb some high summit and look abroad over the land as the sun is setting, and see the forest-clad hills, range beyond range, all tinted with them far as the eye can reach, brought out clear as the last sunbeams light up the far horizon, then fading in the twilight, and reflect that each of these uncounted blossoms is sweet, and graceful, and perfect of its kind. Let some explorer of the antipodes bring us an account of such breadths of bloom, and our interest and admiration would be aroused at once.

As the season advances there are, perhaps, less of these broad effects due to the prevalence of a single species, for with the advance of vegetation many

sorts combine to distract our attention. The blue Violet beds are whitened with Strawberry blows, and every wood and field is full of varied bloom and beauty. And it is so much easier to walk or lie on the flowering sod and look and listen than to fertilize and water and cultivate, at least, for the overworked farmer. Let no one depreciate the efforts of those confined to a window garden; though the vision of the steady fight against nature's opinion of such doings, gives the spectator a sense of fatigue which detracts from his enjoyment. "From the hearth to the field is a great distance," says THOREAU; let us not make it any greater.

E. S. GILBERT.

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### THE WINDOW GARDEN IN WINTER.

After the house plants are all fitted into the niches particularly prepared for them in the window or conservatory, then the real work with them begins, and though we amateurs are all willing to assert that it is pleasant work, it is work, nevertheless. "Eternal vigilance" is the only sure way to success with them. A constant war against all insects; never let them get a foothold, or bid farewell to your cherished hopes concerning thrifty plants. There are simple and effective remedies which, applied in time, will not fail to exterminate many troublesome pests; but it is often the case that insects are allowed to increase before their depredations are noticed. Especially is this so with the red spider, a minute insect, and yet one who is a powerful worker, and can bring to grief a most beautiful plant in a short space of time. I find that it especially loves Fuchsias, Salvias, and such plants. It has an antipathy to moisture, and if you can keep the air moist, you may not be troubled; but if he really comes, he must be thoroughly washed away, not once, but repeatedly. I think I have never had anything to equal whale oil soapsuds as a wash, taking care to have the under sides of the leaves cleaned. Dip the whole plant into the suds. For the aphids nothing ever excels tobacco in some form, either as a wash, or applied otherwise.

Plants infested badly should have

a sprinkling of "fine cut" over the soil, so that when watered the vapor will rise through the foliage. A dusting of snuff is quite effectual, but a good washing with tobacco tea has proved most efficacious with me. A spoonful of soot over the top will banish the little black fly, and as it is a stimulant as well, and harmless, it is well to apply it. In your flower beds out of doors you frequently hoe and stir the soil; don't neglect it after the plants are potted and in winter quarters. Stir the soil with a fork or other small instrument; never allow it to bake on top. Keep it well loosened, so that the water may readily go to the roots. The foliage of all plants should be kept as clean as possible, but in a sitting-room, used constantly, it is almost impossible to prevent some dust from settling over them; but care in sweeping a carpet will save much of it. I always have a pail of clean warm water and a long brush broom; I dip the broom into the water and shake the water well out of it into the pail again, and brush about two yards of the carpet, and then dip into the pail again, and so proceed until the whole room has been gone over, brushing gently but thoroughly. You will be surprised to see how little dust will be raised in this way, and to find how clean and bright the carpet is. But even with all care some dust will get upon the leaves, and they must be washed or sprinkled with water to keep them healthy.

M. R. W.



## BOTANIZING ON THE GREAT KANAWHA.

11.

"These few pale autumn flowers,  
How beautiful they are!  
Than all that went before,  
Than all the summer's store,  
How lovelier far!"

If we would keep our eyes open to the hues and combinations of color which nature continually spreads on her palette, we should have no need of art lessons from her copyists, but could take our instructions at first hand. Like any modern belle, she delights in frequent changes of decoration. But how everything is selected with apt reference to season, and although she indulges in every hue, from the most gorgeous to the finest, palest moonlight tint, there is nothing discordant or displeasing to the eye.

In the spring-time, when the trees were putting on their tenderest veil-like robes, scarce colored enough to hide their naked forms, the shrubs and flowers at their feet bloomed out in white and red, combining a thought of winter snows with the glowing heart of a midsummer dawn. Here and there she relieved it with a dash of purple from Violets and Hepaticas and Blue Bells, but pink and white were the prevailing tints.

July brought the cool Ferns and grasses, and full summer suits of the trees set off by wreaths of the snowy Ipomœa, (wild "Man of the Earth," as the country people call it, from its huge round tuber,) and by fields of golden Daisies. Nature, like man, evidently delights in the "red gowd," for as the August and September days went on, how the rich yellows came out, from the rich Savannah bush to all the multitudinous relations of the Sunflower family, gemming valley and mountain side, wild pasture and familiar roadway with their cheerful beauty.

Then, when the hills and trees assumed the sunset hues, the flowers grew more reserved, and pale lilac, and white and purple Asters came to the fore, like a delicate lavender ruching, to the glorious autumnal robe.

I have just returned from an October ramble. It is one of those rarely beautiful days, with skies of warm yet bracing blue, and sunshine with the cheering quality of a household fire, dazzling, perhaps, to the naked eye, but to which one likes to turn the back unshaded, and

bask in it, like a bee in spring-time, or one of these many aged butterflies which yet cling to summer life. The hills are wrapped in a mixture of warm colors woven in a soft blended fabric, "like," as I once heard a fair friend term it, "to a cashmere shawl."

The later Asters are in profuse bloom, and Aster lævis has added to its beauty by tinting its cordate, clasping leaves with a tinge of red. Indeed, I discover that some of the smaller plants have decided to rival the trees in beauty.

The little Spurge has put on a robe of deepest orange, and the Virginia Creeper trails over the ground, like an unwound ribbon of brightest scarlet. As to the Spurge, what a fanciful thing it is. I made my first acquaintance with it last summer. The plants I found were growing in a crack extending the length of a rocky ledge, and which had become filled with earth and sand, and made a long, thread-like bed for grasses, a few Huckleberry bushes, and prominent at that time, numerous clusters of Spurge. Among the stalks I would occasionally find a clustering sort of growth, looking as much like miniature Cauliflower as anything I could think of. The other stalks were tipped with bloom, and sometimes there would be both blooms and Cauliflower-like growth on the same stem.

I had long and fruitless hunts through my botany after this plant, and almost gave it up in despair. One day, however, I made the discovery that what I had called the petals of my flower was simply a white involucre, (like the Dogwood flower,) and my real flowers were hidden inside, and very minute, and then I found its name.

One must have very sharp and observing eyes to study botany. I am often amused and disgusted when I realize the superficial examinations I made of my flowers in my first attempt to analyze them. If I had scrutinized my flowers more and my botany less, I should have arrived at the secret much earlier.

The next visit I made to my Spurge was in the second month of bloom, when, lo! another change, a little green bell had been hung out, and there the plant



was reaching forth its seeds to any little wandering bird.

And now, on my last visit, I find the blossoms and seeds all gone, and the plant itself in a robe of brightest orange, with the green growth; whatever it is, turned to the deepest scarlet, like a huddled cluster of finest garnet beads.

A new acquaintance that I made to-day is an Orchid, growing in the aforesaid cleft, near the Spurge. A spiral twisted flower scape, covered with white waxen tubes, and looking as if nature had sent it up from below, like a screw through the brown leaf-mold and the fading grasses. I find it is called Ladies' Tresses, *Spiranthes cernua*. It has no leaves at present, but just puts up its stalk, like a little white finger pointing to the deep blue sky.

Going down a shady ravine, called by the euphonious name of Scrabble Creek road, where the sunlight shimmers through clumps of *Rhododendron* and Laurel, I found some vines of *Fragaria Indica*, a Strawberry with yellow bloom, and both in bloom and in fruit at the same time. It is a prettier fruit than our spring Strawberry, for the yellow seeds are covered with a shiny red membrane, like the rest of the berry, but still preserving their shape. Under the glass it looks like a shining gem. But it pleases the eye more than the palate, for on tasting it was flat and insipid. The mountain children eat it, but, like the birds, they eat almost any wild thing. I presume the little brown wren, who makes her home in the Apple tree, close to my window, would think it incomparable eating, and I should think the yellow birds would prefer it to the purple Beet tops which I see them so persistently pulling and nibbling in the back garden. I counted a group of eleven clustered on three plants, the other day, and my approach only sent them into the branches of the Peach trees above, where I could bring the focus of my opera glass much more effectively on them. I noticed there were nine dull coated to but two with more brilliant hues. Bird society is an unapproachable "uppertendom" to me. I am always longing to get into it, and failing, like the merest parvenu.

We have a friendly chipping sparrow, *Socialis*, I think I shall call him, as *BURROWS* is not here to contradict me, and

the name is so very appropriate. He lives and spends his days in the row of young Maples overhanging the long front porch. A little mouse-like creature, with delicate lines shading down his neck and breast, and dainty and prudish as any little Quaker maiden. He seems to be forever picking over the golden Maple leaves for insects, invisible to our eyes below, but I half suspect some of his graceful balancings and swingings are for our especial benefit. Yesterday we hung a biscuit by a strong thread to one of the hidden branches, but he evidently is yet shy of it; he does not know food in such a mass. How would we like to sit down to a custard pie as large as a piano.

But I have had one little, brief friendship with a bird during the present summer, which seems like a tender dream, a fleeting glimpse into an unknown world, a peep into fairy-land, to me.

On one summer morning, which had succeeded one of those coolish nights, which come a little sharply after a season of intense heat, I stepped out into the old-fashioned garden, which lies just beyond my Apple tree. A group of crimson *Petunias* was held up by a little dry shrub, to keep them from trailing their silk dresses on the ground below, and there, perched on one of its bare twigs, a little bunch of greeny-gold feathers, sat a young humming-bird. I softly came nearer and nearer, expecting every moment that he would fly away; but the little thing seemed chilled or sleepy, and I at last took him in my hand. He did not seem to flutter, but gasped a little, and I thought him dying. I kept him in my warm hand, and sending for a lump of loaf sugar and a tiny glass of water, I took him in doors. I patiently held him in one hand, warming him, while with the little finger of my right hand I held a drop of the sweetened water to his bill for some minutes, and was finally rewarded by the little bill opening and the wiry little tongue sipping the sweet from my finger, running about under the nail of it, as if it were a flower. He soon grew lively, flew around the room, and perched on some flowers on my dresser. Then he took longer flight, and grew so tame that when he was hungry he would fly down to me from top of a picture or mirror frame, and alight on a little twig which I would hold out, where he would



sit and sip his sugar and water from a teaspoon or the end of my finger. Three drops satisfied his desire for the time, and away he would fly again, always alighting with a little chirp, or rather squeak, for it sounded precisely like a little mouse. Once I varied his food with diluted honey, but he seemed to prefer the sugar. I gave him the range of two rooms, and having no cage, I fastened a spray of Fuchsias by my window, where he slept at night, with the tiny head under the wing, never moving until the dawn came, when he became uneasy until he had his sip of sugar and water.

What completely won my heart was the fearless confidence of the little thing. One day, I remember, he had alighted on the edge of the dish of honey, and losing his balance, he smeared his breast with the thick honey. I cleaned it as well as I could, but some of it dried and stuck the small feathers together. The next day I tried again to moisten and clean them out with some soft article and tepid water. He was sitting on a twig held in my left hand, and as I rubbed a little hard, he scolded and moved a trifle along on the twig, as much as to say, "work away, but please be more gentle."

Another thing he delighted in was to be held on this twig over a large spoon-

ful of soft water, and dip in his beak and splash water over his little body.

I did not have him long; indeed, how could I rob him of the out door, happy August days, which were passing so rapidly out of his brief life. So, I said to myself every morning, while I surrounded his window with fresh flowers, and still kept the glass closed between him and freedom; but the little thing awakened an almost human love in the heart with his own trusting confidence and his rare, gem-like beauty.

Finally, on one evening, when he seemed settled on his twig for the night, I opened an outside door to the room for a brief moment, and just as I was closing it again, there came a little whirr over my head, a dash of golden green, and he was gone.

That night it blew and rained. I could not sleep, for it seemed to me there was a tender baby out in the chilly rain. But I have seen many humming-birds since then, still flying about the Petunias and late summer Roses, so we will trust that my little pet was soon sheltered and companioned among his own relations, and ready to start with them on the long aerial journey southward. But to me he was like a visitant from fairy-land.

LOUISE SAMSON.

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### ROCK CRESS.

The several varieties of Arabis, or as they are popularly known under the familiar name of Rock Cress, form, when taken together, a very pretty and useful group of early spring flowering plants, belonging to the natural order Cruciferae. They are hardy, herbaceous plants, of dwarf habit, growing about nine inches in height, having oblong, dark green leaves, producing their showy, pure white flowers in many long-stalked corymbs during the spring and early summer months, and on this account I consider them to be deserving of more attention than they at present receive, as they can be used to good advantage in rockwork or in groups in the mixed border, where they are always attractive.

They are plants that can be easily cultivated, and they can be grown to great perfection in any garden soil if it is deep and has been thoroughly but moderately

enriched. The seed should be sown in a nicely prepared cold-frame, about the first of May. Sow very sparsely, cover slightly, and press the soil down moderately firm. Water should be given whenever necessary through a fine rose, and as soon as the young plants are strong enough to handle they should be carefully removed to a well prepared border and planted in rows six inches apart each way; then these young plants should be well watered and shaded from the sun for a few days, or until they have taken root.

During the summer season they should be well cultivated so as to keep them clean and free from weeds, and in October they can be planted out where it is intended they shall bloom. They should be given a deep, moderately enriched soil and planted about nine inches apart, and afterward given a surface dressing of



well decayed manure annually. This is best applied in November, and it should



ARABIS ALPINA.

be well worked in among the plants in

the spring. And if a few evergreen or other branches can be laid over the plants during the winter months it will be of decided benefit to them.

The most desirable varieties for general cultivation are the following :

*Arabis alpina*. This is a native of Switzerland, and grows about nine inches in height. The pretty white and yellow flowers are produced in March in its native home, but in this country the time of flowering depends entirely upon the weather and the situation in which the plants are grown.

*A. albida*. Similar in all respects to the foregoing, except in the color of its flowers, which are pure white. It also continues much longer in bloom.

CHAS. E. PARNELL, *Queens, N. Y.*

## TRUSTING SOULS ALWAYS HOPE'S MUSIC MAY HEAR.

Weary, so weary of snow, and the sighing  
Of wintry cold breezes and leaden-dull skies ;  
The Pines chant a requiem down in the forest,  
The Hemlocks droop low, and the river replies.  
And this is the burden the Pine trees are chanting,  
And this is the answer the rivers return ;  
No more through the earth do the warm breezes  
loiter,  
No more in earth's bosom do summer-fires  
burn.

The flutter of bird-wings has ceased, and the singing  
Of blithe summer breezes no more do we hear ;  
No Rose sends its fragrance, like incense to heaven :  
Earth's pulses beat slowly,—the winter is drear.  
Like castinets clatter the icicle fringes,  
The crystals shoot sharply and clear through  
the morn ;  
In mockery grim shine the dazzling frost-jewels  
Of the warmth and the light which in summer  
are born.

Perceiving, our hearts sigh with pitiful yearning  
For warmth and the joy which aforetime was ours ;  
Far more neath the winter's white snow-drifts  
are buried  
Than summer's sweet incense, her birds and her  
flowers ;  
There are joys that have perished, and hopes  
that are blighted,  
And friends passed away whom no more we  
shall greet ;

And faith and affection have hidden their blossoms  
Beneath the white snows that time casts at our  
feet.

But, hark ! through the river's monotonous moaning  
An undertone deepens and breaks on the ear :  
" The earnest soul finds in the world what it  
seeketh,  
And trusting souls always Hope's music may  
hear.  
O'er head shines the same sun that gladdened  
the summer,  
And time's golden cycle shall bring us again  
The Rose and the Lily to gladden the garden,  
The Daisy and Cowslip to dance on the plain.

" Again shall our hopes and our dreams rise in  
beauty,  
As tender-eyed Violets spring from earth's breast ;  
And faith and affection anew ope their blossoms,  
The brighter for lying a season at rest."  
Deep down in earth's bosom warm pulses are  
stirring,  
Not long shall the winter now hold us in  
thrall ;  
Again shall our hearts know a summer of glad-  
ness,  
So trust ye, sad heart, for there's One who  
guides all.

DART FAIRTHORNE..





## FOREIGN NOTES.

### ORCHID CULTURE.

A notion prevails that Orchids generally are extremely difficult to grow unless houses are specially erected for them, and this, it is almost needless to add, has a most deterrent effect on would be growers. Now we have no Orchid houses, or even many places that would be considered suitable for them, yet no great difficulty is experienced in growing and flowering a fairly good selection. What we can accomplish may be safely undertaken by various other cultivators with every prospect of ultimate success. Nor is the original outlay at all disproportionate to the amount of pleasure to be derived from the flowering of a small collection of Orchids, or even in excess of what would have to be expended in the purchase of a small collection of ordinary stove and greenhouse plants. The novice need not procure the most expensive forms of the various species, this luxury being reserved until he can appreciate their distinctive features. For the present he must be content with the more common varieties, and strive to grow these to perfection. All are more or less beautiful. The majority remain fresh for a much longer time than do ordinary flowers, and are certainly totally different as far as their formation and the habit of growth is concerned.

Cypripediums are among the most easily cultivated, and if not particularly beautiful, their quaintness attracts attention. *C. insigne* is the best known of the genus, and a very serviceable plant it proves. At the outset I made the common mistake of keeping it in an ordinary stove temperature, whereas it should be given heat only when forming fresh growths. Supposing the plants flower any time during the winter or early in the spring, they ought, if possible, soon after the "slippers" drop off, to be placed in a plant stove or forcing vinery to complete their growth. It is unwise to be constantly pulling them to pieces and repotting, but if badly crowded with growths, or it is desirable to increase the stock, they may be carefully pulled to pieces

prior to the commencement of active growth, and repotted in a compost consisting of one-half rough fibrous peat and charcoal crocks, and sphagnum moss in about equal proportions. Then if the pots are well drained there is little danger of the compost becoming sour, a contingency always to be guarded against in Orchid culture. Some mix turfy loam with the compost, but this practice ended disastrously when tried here, and we use this for the annual spring top-dressing of established plants only. When growing freely they require plenty of water at the roots. In June all should be transferred to a cold-frame or pit, and there be kept well supplied with water and shaded from bright sunshine. In September, or later if need be, they may be taken to a warm greenhouse, conservatory, or living-room to develop the flowers already showing at nearly every full formed growth. In a cool house or room, if kept properly attended to, the flowers will remain fresh for about two months.

W. IGGULDEN, in *Jour. of Horticulture*.

### MARIGOLDS IN POTS.

French and African Marigolds exhibited at a flower show in England, are mentioned in the *Journal of Horticulture* as attracting much attention. "These were treated as annuals and planted out in the open, but as they had not finished their flowering in October I had them taken up and placed in large pots with as large a bole of soil as possible, keeping them shaded for a short time. They did not suffer by the lifting, not losing a leaf, and they are now blooming with the Chrysanthemums in my conservatory in the most satisfactory manner, and we shall be able to save the seed of the best quality plants, while if they had been left out the early frost would probably have spoiled them. They have been much admired in the conservatory, and form quite a striking feature with their large orange and lemon-colored blooms that last quite as well as Chrysanthemums. I shall certainly grow more of them next season for this purpose, as they give



double pleasure by blooming in the open during the summer, and give autumn flowers for the little trouble of taking care of them in the way I have mentioned."

#### CUTTING CHRYSANTHEMUMS.

When the cutting down of Chrysanthemums for the purpose of securing dwarf flowering plants was first advocated, it occurred to me that by the same method it would be quite possible to secure cuttings earlier from those sorts that are known to produce shoots very sparingly until the spring. From some varieties it is possible to obtain all the cuttings required by the time the plants are well in flower. With other varieties we have to wait much longer. It was this fact that induced me to try the cutting down system on weakly growing varieties for the production of offsets or cuttings, and two years' experience proved that I was right. The plan is so simple, and was attended with such satisfactory results, that I should still adopt it if I exhibited Chrysanthemums, or if I required them in the best possible condition for any special purpose. The cuttings were struck in March or April, and at the end of May the plants were put out in a piece of good ground in the kitchen garden, where they were properly watered, &c., all the summer. The third week in September I cut the plants down to within three inches of the ground, and the result was that in the course of four or five weeks they began to send up fresh offsets, and although all did not furnish sufficiently strong cuttings before there was danger of frost injuring them, the majority of them were ready, and those that were not in condition by the middle of November I lifted carefully with a fork and

placed them on the floor of the orchard house. Some soil was put over the roots, and by Christmas the plants had furnished all the cuttings required, so that it was not necessary to keep the old specimens. By this plan the cuttings are not only obtained earlier, but are much stronger than those from plants that have been exhausted by flowering, and this is a point of considerable importance, especially to those who want the plants in the best possible condition. The experienced grower never fails to recognize the value of strong cuttings, no matter what the plant to be increased is, and in the case of weakly growing Chrysanthemums any method that will increase the size and strength of the cuttings cannot but be of great value.

J. C. C., in *The Garden*.

#### ROSES IN ENGLAND.

Francisca Krüger is a Rose which must continue to gain favor, for it is very vigorous, extraordinarily free-blooming, especially in autumn, and its flowers are perfect in form; in color they are not unlike a deeper Jean Ducher, though less variable than that variety. Princess Beatrice, as shown by Mr. BENNETT, appears more like Francisca Krüger than any other Rose, having moderate sized flowers of perfect form and very pleasing color.

The other conspicuous varieties among the new Teas were the bright yellow Comtesse de Frigneuse, in the way of, but distinct from, Amazone; and the great American gain, the wax-white form of Catherine Mermet called The Bride, to many "the lovelier daughter of a lovely mother," and unquestionably worthy of the most extended cultivation.

T. W. G., in *The Garden*.





# PLEASANT GOSSIP.

## MY FLOWERS.

A royal purple Morning Glory peeping in my room,  
A row of crimson Poppies in most luxuriant bloom,  
A bunch of Double Zinnias, and Mignonette so sweet,

And Portulaca's lovely flowers beneath our very feet ;

The giant Sunflowers, tall and grand, look down on all around,

In scorn of daintier, fragrant flowers, that blossom on the ground ;

And Four O'Clocks of varied hue and exquisite perfume,

In silken robes of finer thread than comes from India's loom ;

My Pansies! " They're for thought," 'tis said, defy descriptive power,

I only know their varied charms give pleasure every hour ;

The cheerful, yellow Marigold, Nasturtium's helmet gay,

And Sweet Alyssum's tiny flowers grow dearer every day ;

The wild rosebush in dress of green, and dainty Golden Rod

Are Nature's gifts—prized volunteers of their own native sod ;

And these, my gentle flower-friends, their beauty and their grace,

Are silent witnesses for Him who gave them life and place.

F. A. REYNOLDS.

## VARIOUS INQUIRIES.

Nicotiana affinis. When should the seed be planted to have plants ready for winter flowering? I have always raised them from cuttings. With me it has proved one of the most beautiful and most fragrant of winter-blooming plants, always opening at evening and filling the room with a sweet and heavy fragrance.

Cactus. Should it be kept near the glass to induce blooming?

Heliotrope. Why are the flowers small, and soon turn brown? It is in a warm place and very near the glass.

Begonia Rex. How shall I treat it to insure a more rapid and thrifty growth? The florist advises constant shade, while a western friend reports the best success from growing under glass in the sun. Which is best?

Moon Flower. When I see advertisements with this flower represented as nearly covering one side of a building I am quite amused. It is so different from my experience with it. Three years ago I raised one plant from seed of Ipomœa Bona-Nox, or Moon Flower. The seeds were large and fine, and obtained from a reliable seedsman. They were planted under glass and transferred to the garden at the usual time for planting out. The plant grew thriftily and bloomed freely, but when I looked for

fragrant, white flowers, I found them a dingy red and perfectly scentless. Do you think the soil had any influence on the flower?

A SUBSCRIBER.

Seed of the Nicotiana sown the latter part of spring will give plants for winter blooming. The blooming can be retarded by pinching back the plant.

Cactus plants, as well as any others, will thrive best close to the glass, but to insure blooming other conditions must be observed, which will depend upon the particular species. A few kinds are winter bloomers, but for the most part their flowering season is summer. As a rule, these plants should have but little water during their resting season.

The heat may be too great or the air too dry for the Heliotrope inquired about, or the soil unsuitable, or potting improperly done. If the plant is in a living-room where the heat is kept at about 70°, care must be taken to supply moisture to the atmosphere, and every few days supply some water to the plant by standing it in a saucer of water.

Begonia Rex is not a rapid grower ; to make a moderate growth and maintain the plant in health should be satisfactory. In winter but little if any shade is needed for this plant, but a bright sun many hours in the day in spring and summer is objectionable, however, the shade should be very light.

The Moon Flower is a remarkably strong and rapid grower. The trouble in this case was that the plant was not the Moon Flower. The plant here described with dingy red flowers is sold by European seedsmen as Ipomœa Bona-Nox, but it is not that species. Seedsmen in this country who purchase the seed in Europe get this red-flowered kind and send it out as the true Moon Flower, thereby disappointing their customers.

## PANSIES AND VERBENAS.

Pansy and Verbena seed ought, if possible, to be sown this month in order to get strong plants by the time they will be wanted in spring for the open.

## CHRYSANTHEMUMS AND HYACINTHS IN PARIS.

Chrysanthemums are much in vogue at present in all fashionable circles, for in flowers, as in everything else, there is a fashion. A richly embroidered dress, with purple and pink Chrysanthemums, ordered by the Chinese minister, destined for a bridal gift, was exhibited to a favored few, and was an artistic conception, proving that the needle may be as dextrously handled by the work-woman as the paint brush by the artist's hand. Quantities of these flowers were ordered daily, and kept in view while the garment was in progress of fabrication, it being difficult to match the more delicate tints of lilac with the silken threads, but the result was a most pleasing one, and certainly proving the handiwork of the French artisan as first,

and superior to the Chinese, who excel in their wonderful powers of imitation. We treasure their embroidered silken stuffs, and every artist's *atelier* has some Chinese object, esteemed for its quaint and picturesque effect. To the lovers of needle-work let me say, imitate as nearly as possible the natural flowers, and if imperfectly executed, the result will be more pleasing, and not so monotonous as when every flower is stamped alike and is embroidered side by side until the end of the work, not even with variation in color.

The Chrysanthemum is the last flower of summer. Lord Beaconsfield, with its incurved petals, the beautiful Julia Lagravere, pompon, called the model of perfection, and a deep brown one with yellow at the center, whose name I could not learn, are Parisian favorites, and it is said there are thirty-six new ones on the list.

OSCAR WILDE, with his absurd sentimentality, has killed the popularity of the Lily for household decoration; it will rest forever an altar ornament, while the modest Sunflower evermore will repose in the field—admired at a distance.

The Myrtle will grow in favor since the account of how JENNY LIND preserved her little wedding branch during her married life, and a wreath was made and placed upon her grave from its branches. This is a true German custom, and a German girl asserts a superstitious belief that if the wedding wreath, or the plant raised from it, meets with an untimely end her



FANCY WINDOW STAND.

happiness will be destroyed. I knew an American girl, whose romantic wedding at a small city in the Black Forest, attracted some note years ago, who attached but little importance to the fact that a gust of wind blew away her spray of Myrtle, and not more to the after result, that it was picked up, replanted, and took root, and like her happiness is, to date, still growing.

Hyacinths are here from hot-house beds; pale, delicate tints are desirable. They are sensitively expensive, and repay us for the very little care we give them. How many of my readers have, in past years, bought pretty Hyacinth glasses, filled them with water, as directed, and put them in a dark closet, or out of the way place, forgetting them, and when, at last, remembered, found they had sufficiently advanced to breathe a fragrant good morning. How can the glasses be arranged to the best advantage? Watching the growth of the bulbs in glasses is interesting to many, especially to children. The mode now adopted in Paris, and which does not allow of this observation, is really more gratifying and pleasing.

The sketch will show a window piece, in which birds, fish and flowers will each



do their part to make home agreeable during the winter months. The table is of tin, highly decorated or painted; it has places for soil in which the Hyacinth bulb in pot is plunged and renewed as the flowers fade. The gold-fish receptacle is filled daily, and the waste water carried off by an invisible or hidden faucet beneath the table. The bird cage, reposing upon a glass spire, can be removed, and is in no way necessary to the beauty of this unique and graceful window ornament. The gilt cage, and still more golden-colored satin bow, which decorates the side, cannot vie in beauty with the yellow plumage of the favorite and favored warblers.

As the season of Hyacinths advances, the capricious lady can replace the bulbs by new favorites. It is considered the *jar-dinier* of the season.

Eight hours' journey brings one from Paris to London, and despite the rough channel, the trip is worth taking, in order to see the fall show of Chrysanthemums and Orchids. In Paris, a few delicate Orchids will peep from a basket of Roses, but in London they are used in profusion, a wastefulness, indeed, in the lavish decoration of dinner and supper tables; masses of Orchids form center pieces of pink and every known shade of color. Nor are they confined to table ornamentation. Dame Fashion, in English society, has decreed their combination with Orange blossoms, which adorn the corsage and sides of wedding robe, trailing upon the long train and ending there in a coquettish bouquet of natural Orange blossoms.

It is said the French can arrange flowers with better taste, grow them to a greater perfection, and imitate artificially better than any other nation.

At a London dinner party, given on Lord Mayor's day, the center of the table was a bank of red Roses, heaped up in a careless profusion, as the table was very large. Judge of dimensions and quantity of Roses used. Lady BRASSEY, whose trip around the world on the Sunbeam, and her sad death at sea, is familiar to American readers, loved wild Roses. Visiting her old home at Park Lane, and noting the many souvenirs of travel which workers were endeavoring to place in order in a sort of Indian museum room, there came to view quanti-

ties of dried flowers and feather flowers and curiosities of a floral character from Tahiti. The walls of her boudoir were decorated with garlands of wild Roses, but upon each spray perched a grinning monkey. As she was an eccentric woman, this feature may be ascribed to her love of originality.

Back to Hyacinths. Single ones have the preference of Parisian florists. Sprays of white ones are tied with bright red ribbon, the shade of red esteemed by the commune, to which a card is attached, furnished by the florist, having some grotesque figure in black, to cause merriment, but bearing no printed verse of rhyme, the Hyacinths supposed to speak the message desired. Delicate blue and pink Hyacinths are arranged in white baskets, with threads of silver and gold cord studded here and there in the willow work, which bring out in gas light the rare beauty of the flowers. Bright red ones peep from moss baskets, and the handles decorated with huge yellow bows of finest quality of satin ribbon. It would seem as if at the advent of Hyacinths adieu would be bidden to Chrysanthemums, but it is not so; side by side they appear in the florists' large windows, as if unwilling to part company. The prices paid for flowers of new shades are almost fabulous.

ADA LOFTUS.

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#### FLORAL GOSSIP.

I am often asked which are preferable for sitting-room use, glazed or painted flower pots, or those that are plain and porous. In reply to the question I have to say that I prefer the plain, unglazed pot to any other for greenhouse use, but in the living-room I think a glazed pot most satisfactory. Why? Because the high temperature of most living-rooms cause such a rapid evaporation from the soil in the pot, if it be a porous one, that plants suffer from lack of moisture at the roots very frequently, when those who have charge of them think the soil must be moist all through. The pot gets warm from contact with heated air, and this, combined with the free admission of heated air through the pores of the clay, on all sides of the pot, takes the moisture away from the soil below its surface almost as rapidly as it evaporates from the top. If painted or glazed pots are used, there will be no admission of this

air through the sides of the pot, consequently no direct evaporation there. I am aware that some advise against the use of these pots on the plea that they make the soil heavy and sour, and that the air cannot get to the roots readily. The first objection can be met with the assertion of a simple fact: If proper drainage is provided, a plant can be grown healthily in glass or tin, or any vessel having air-tight sides. The surplus water will run off from the soil, and drain out at the bottom through the material provided to keep the soil from packing down and filling up the hole in the bottom of the pot. I have frequently seen remarkably healthy looking plants growing in old tin cans whose bottoms were punched full of holes for the escape of water. Without these holes plants so grown are almost always sickly. This proves that the important item to be considered is drainage, rather than the material of which the vessel is composed or the condition of its sides. As regards the objection raised against glazed pots because of the non-admission of air to the roots through the sides, it amounts to nothing. If the surface of the soil is stirred frequently, as it always should be, the air can penetrate to the roots through it quite as easily and as perfectly as the air gets to the roots of plants growing in the ground. Where but few plants are kept in the sitting-room, glazed or painted pots add vastly to the appearance of the flower stand. Until within a period of a few years it was supposed that plants would not thrive in glazed pots, but this has been abundantly proved to be an error.

The question is often asked, 'What shall I do with my Hyacinths, Tulips, and other bulbs after they have blossomed in the house, in water? Are they good for anything, or shall I throw them away?'

I would not advise that they be thrown away, and I should not advise any one to count very much on future returns from them in the shape of good flowers. After forcing they are so much exhausted that they must have at least a year to recuperate in before they are in condition to bloom again. It will be seen, therefore, that they are worthless for use in the house next season. Always get a fresh supply of bulbs for winter-flower-

ing. After they have blossomed dry them off gradually. When the leaves are yellow, set the pots away until spring. Then plant out the bulbs in some spot where they will be undisturbed, and after a time you may look for some flowers from them, but I think they are never as large and fine as those you get from bulbs which have never been forced, and you certainly will not get nearly all the plants to grow unless your luck is better than mine. Indeed, I have given up trying to make much out of bulbs which have been brought into bloom in the house. It is much better to plant out fresh bulbs, for then you are sure of having strong plants, all things being favorable. If you have a corner that you have but little use for, put your winter-flowering bulbs into it at the coming of spring, and give them a chance to recover from the effect of being brought into bloom out "of due time." If you get any flowers, and undoubtedly you will get some in time, you are the gainer of what would have been lost by throwing them away. But, as I have said before, they can't be depended on.

A friend of mine has fitted a case to the lower part of one of his windows, in which he grows Ferns very successfully in his sitting-room. This case is constructed on the principle of a fernery, and is made just the size of the lower half of the window, with large panes of glass on both sides and in front. It stands on a wide shelf fastened to the window sill, and can be removed easily, as it has no bottom. It really has only sides, front and top, and slips over the plants as they stand upon the shelf, till it reaches the window back of them, against which it fits closely. While it is not as close as a fernery usually is, it keeps the air about the plants moist all the time, and protects them from the heat in the room and the dust, also—something no Fern will stand long. In this case he has very fine specimens of *Adiantum cuneatum* and *A. gracilimum*, *Pteris robusta* and *P. argyrea*, and some good plants of *Begonia Rex*. The effect is very fine when seen from out or in doors, and my friend is so delighted with his experiment that he intends to have cases made for two other windows next season.

EBEN E. REXFORD.



**HEALTH AND HOUSE PLANTS.**

Georgia correspondents may tantalize readers with stories of winter Jasmine and Gloire de Dijon Roses, while their own gardens are sleeping in snow, but where are flowers treasured and cared for as at the North? The more difficult to grow plants, the more devoted people are to their culture. Scotch gardeners and amateurs come in mind at once, but a more striking example is found in Sweden, which has given the most ardent botanists and florists to the world. There botanical gardens are favorite resorts of the cities in the long summer evenings, and the streets show in winter, behind its double sashes, every casement gay with Geraniums, Myrtles and the choicer blossoms of southern climates. Where human beings thrive, plants can flourish, and where these do not blossom humanity contests poor conditions. The house where plants freeze every winter is not a safe one for a family to live in. Its alternate freezings by night and heating by day will end in breaking down the health of its best and most susceptible members. Or the hot, close, sitting-rooms, where plants turn yellow and lose their leaves for want of ventilation, will surely weaken and poison the women and children living in them. I never knew healthy people in rooms where plants would not live, and I have known rheumatism, pulmonary diseases, neuralgia and diphtheria follow unerringly where quick fading leaves and dying plants ought to have given significant warning of bad air and racking extremes of heat and cold.

The most pitiable case I ever knew was a neuralgic woman, who, for twenty years, was shut up to such tortures as shock belief, in rooms so vitiated that never a plant would survive the winter in them. The disease which disabled her from society, almost from intercourse with her own family, began in a country house, kept after the manner of many farm houses, where the heated kitchen, with its elevated oven baking the air, and the sitting-room with its huge base-burner, were exchanged nightly for sleeping-rooms where the frost grew an inch thick inside the windows, and water froze solid at the bedside, for months together. Not the cold sleeping-rooms, but the extreme changes from hot, oven-like rooms to hard freezing, in an atmos-

phere seldom changed, was fatal. From State to State, and climate to climate, the wretched sufferer went, only to find fresh agonies, and never, in all this time, was she in rooms where a solitary plant could be persuaded to grow. In a milder climate I found her, where every known kindness was lavished on her, yet suffering untold agonies in a close, steam-heated room, where one hour the thermometer on the farther wall was 85° or 90°, the gas leaking slightly, and the air breathed all day by two old persons, only changed by opening a window twice a day. Two hours later, perhaps, the steam being down the glass would be 50°, when a kerosene stove was lighted to take the chill off, sending its gases into the room. Any gardener knows that a greenhouse full of Geraniums would be killed in ten days by such treatment. By night and by day this poor sick woman was drenched with poisoned air, never thoroughly pure to healthy senses, feeding her disease and racking her with pain, till her good old physician declared if no other relief was possible he meant to dose her with morphine, until her sufferings should cease forever. I argued, scolded, plead, almost in vain. Her dense old husband, who scarcely knew the sense of smell, found the air all right to his perceptions, and laid her sufferings to the mysterious will of Heaven. I remonstrated till concessions were made in shape of an open fire and a window altered to let down at top. The blaze burned out the stagnant impurities of the air, farther renovated by the sash kept lowered an inch or two on all but the stormiest days, and with very simple medication and care for diet, in three weeks the helpless invalid was about the house, relieved to a degree that was wonderful compared to her former state. She had been poisoned as truly as if by strychnine, and the proof was before all eyes that knew enough to see it in the dying plants in the wide, sunny window. Climbing Fern, Ivy, the Bonnaire Rose and Tradescantia, thriving when taken in by November, and less than six weeks later, perished, past hope. I tried to make that man see how his wife and the plants were dying of the same vitiated breath, but he was too obtuse. The plants died—well, because they died—and the woman suffered agonies equal to those of cancer,

from some mysterious, unexplainable cause. In summer she was better, because she could go out. In winter she must expect to suffer. She kept better by pretty close watching till spring. I found her in October again as bad as ever, this time in a nice large room without any fire-place, and only one window, alternately hot with steam radiator and chilled when the steam was down, where the kerosene abomination shed carbonic gas abroad. With not a crack for ventilation, the room was as close as a dry goods box, save when the window was open, letting in floods of cold air. It would kill a Myrtle to heat it and smoke it with kerosene, and then let the sashes open on it. It did worse by this gentle, long-suffering woman. It racked her by day and night, without having the mercy to kill her. And it was necessary to take even cut flowers out of the room to keep them twenty-four hours.

Men and women to whom health is dear, as it is to every one of us, keep plants in your homes, your houses and rooms as registers of the safety of the air you breathe. Where they will not flourish, look sharply to the conditions, for where they cannot live, you cannot. Neither close, steam-heated rooms, nor air poisoned by leakages of gas or pungent with fumes of open kerosene heaters, or parched with big base-burners plus kerosene lamps and many breathing and perspiring people, are fit to live in. Try them by bringing fresh pot plants, which in a week will show yellowing leaves and drooping strength if the air is not wholesome. Always keep plants in your rooms as indexes of health. The absurd notion that plants render the air of living-rooms unhealthy should read the other way. Impure, unventilated air sometimes poisons the growth and soil of plants so that in time they throw off more or less of the poison absorbed, but they purify the air till their strength is gone, and in decay give prompt warning of danger. I remember pots of Violets in full bloom and vigor taken to my city lodgments, turning spotted in a week, and I remember, too, the ulcerated sore throat which attacked my boy in those rooms, time after time, till we fled the city, once and forever.

When in hard, trodden or baked soil, the very grass refuses to grow, the sur-

face water is not carried through in wet times, and houses on such sites are unwholesome. Given a well drained, sweet, rich soil where grass makes firm sod and plants thrive, no local disease can make its way.

"What would you have us burn," some one asks, "if steam and base-burners are both so dangerous?"

No kind of heating is injurious if managed right. Steam heat is debilitating because it gives no change of air in a room, as a burning fire does. With steam the window ventilator at top of the sash, and transom over the door into a well ventilated entry are indispensable to provide pure air. The constant, gradual change of air is ventilation, and this alone provides pure air to breathe. A room without openings to let the air in and out, proportioned to its size, may be aired by throwing the window open each hour, but the vitiation begins five minutes after it is shut. It is as if one had to drink water from a tank, with a minute stream of impurity falling into it, instead of from a brook which continually swept it away. The trouble with air-tight stoves, base-burners and furnaces is more the dryness of the air. The ventilation by a window lowered an inch at top and a similar opening of the transom will keep the air fresh. Windy days a mere crack is sufficient, a greater volume of air forcing itself in doors. For moisture, the little absurd vases and pans are worthless. Every stove should have a water pan as broad as its entire top filled with clean water, evaporated daily to give healthy moisture for lungs and plants. A boiling tea-kettle is a very healthy adjunct to sitting-rooms, and rather fashionable one now-a-days. Ignorance of the natural life about us strikes me as a crime to humanity, not only shutting it out from a thousand high delights, but from a thousand significant lessons as to its health and happiness.

SUSAN POWER.

#### FLOWER NOVELTIES.

A French seed firm have sent out to the trade, this season, a peculiar variety of *Phlox Drummondii*. The flower is star-shaped; each of the five petals has a long point running out like the rays of a star, the central portion of the petals being thus elongated to twice its usual



length. It is a most remarkable form. This style of flower is found in three colors, violet-blue, purple and probably a bright scarlet, but in regard to which we know only the name, *splendens*.

Another novelty is that of a large-flowered variety of *Torenia Fournieri*, called *grandiflora*; and still another is a dwarf, double, purple-flowered variety of *Senecio elegans*. All these are from one house, that of the Messrs. FORGEOT, of Paris

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#### CHAUTAUQUA HORTICULTURE.

The Chautauqua Horticultural Society held a meeting January 7, at North East, Pa. The discussion was, first, on Cold Storage for Grapes. The advantages were stated to be the ability to retire a part of the crop, in the height of the season, and especially when there is a glut of the market. It was believed that the Concord can be kept in good order 'till Christmas. Other later varieties can be kept 'till February and March. It is not necessary to resort to ice, in these cold storage rooms, the object being secured by proper ventilation.

The best room to keep grapes is, one with a dry, even, and moderately cool atmosphere.

On the subject of varieties, aside from the standard sorts now generally grown, the *Vergennes* was highly commended by Mr. Shoenfeld, as a hardy, healthy, fine colored grape, and as being a good keeper. It was well put by Mr. Watson, that it was not necessary to plant in acre lots, in order to test the merits of new varieties. A few vines will give an opportunity to test the habit of growth and quality of any variety. On the subject of pruning, there were two methods described, both using post and wire trellis as a support. It was strongly urged to put up three wires, using No. 9 wire as being decidedly preferable to two wires as more commonly used. With two wires the space between the wires is so great, that many of the new shoots are broken by the wind, before they have become firmly attached to the wire, the use of three wires in a large measure obviates this danger, which can never be entirely avoided.

The first system carries one main arm or cane, with the direction of the prevailing wind, reaching to the next vine. This

is called the one arm system; the bearing wood is trained up from this main arm on the lower wire, to the upper wire, or to the second and third wires, where three wires are used. The second system, and the one by far most generally used in this county, is what is called the "Fan" System, in which one, and sometimes two or three main arms come up, two or two and one-half feet to the lower wire, and from these main arms, the bearing wood, pruned to canes two or three feet in length each, is carried in both directions

In a Concord vineyard, bearing an annual crop of four to six tons, there is left on each vine thirty-five to forty buds, or five canes averaging about seven buds each, besides two or three short spurs of about two buds each. It was held that the quality of the crop was not essentially affected by either method of pruning, but that it should always be borne in mind in pruning, that the vine has to grow and perfect two crops at the same time; one the crop of fruit, the other a crop of wood. Not to grow either of these in excess, but in proper harmony is the aim of all judicious pruning.

Fifteen new members joined the society which is in a very flourishing condition.

The next meeting will be at Ripley, N. Y., January 21, continuing the above discussion, and adding, "Best Fertilizers for Grapes."

SECRETARY.

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#### FERNS IN THE HOUSE.

We would call the attention of those of our readers who are fond of Ferns, and have no other facilities for raising them than what is afforded by the window, to the excellent plan related by Mr. REXFORD in his "Floral Gossip," in this number. The method recommends itself by the fact that it is practicable, is comparatively inexpensive, and the confined space may easily be of sufficient height to accommodate tall as well as low plants. A stand, which is necessarily somewhat expensive, is required in the case of an ordinary fernery, while here the window-sill serves the purpose. For a north or east window, no care would be necessary to protect from the sun, at a south window, however, shading during the brightest sunshine must be resorted to. The plants are in pots standing on the shelf. They would do still better planted in a box of soil the length of the

box being the width of the window, and about ten inches wide and six or eight deep. This would give a body of soil in which the roots could run freely, thus allowing a better development of the plants. We see no reason why, with this appliance, the room cultivation of Ferns should not be greatly extended.

#### SMALL FRUITS—ONIONS.

The wonderful growth that the plants of small fruits which I procured from you, last spring, have made the past summer, notwithstanding the severe drouth, have drawn praise and admiration from all who have seen them, and I am convinced that small fruit plants grown in your locality surpass those that are grown farther north. The seasons are longer, and they have more time to make roots, and when set out in our rich soil here, they make wonderful growth. When I received the plants and opened the box my men remarked that a mistake had been made, and a bale of Broom Corn sent, so great was the difference between them and those we had previously been handling. I think now, if I were a thousand miles farther west I would send to you for small fruit plants, and recommend others to go and do likewise.

I will say a few words in regard to the drouth-withstanding qualities of the Early White Globe Onion. I planted three varieties of Onions the past season, the Red Wethersfield, Red Globe and the above named, and while the Red Onions made nothing but sets on account of the drouth, the White Globe made fair sized Onions, and if they would do equally as well in a favorable season the crop certainly would be immense. As to their quality, they seem milder than the Red Onion, and are keeping excellently. I shall give them a fair trial again the coming season, believing we will have plenty of rain and a good crop.

P. C., *Sigourney, Iowa.*

#### "MY MORNING GLORIES."

In the November number the lines by H. N. SWANWICK were pretty enough, but "my Morning Glories" are the "Gem of the Garden," sowing themselves every autumn ready for early spring. Being under an Apple tree, last summer, we gave them some lines to twine upon, and

up into the tree they went some twelve or fifteen feet. Every morning they opened their gaudy cups of gay colors, and until past high noon "did their best," unless the heat was too intense for any thing to keep from wilting, and even then they would keep bright until about ten o'clock, filling, at the same time, the atmosphere surrounding them with an aroma second to that of no other flower. I write this for every one to plant the Morning Glory where they will have plenty of shade, and if the soil is a little moist so much the better, and they will prove a delight for three months of the summer season; and days when it is a little cloudy or misty they will remain open all day. D. S. T., *Brockton, Mo.*

#### SEEDLING DAHLIAS.

Now is the time to procure the seed; then fill as many three-inch pots with loam as you have seed. In the center of each pot press one seed, holding the seed so that it will "stand up" beneath the soil, place in a southern window of a warm room. Each seed will grow, and when the time for setting out Dahlias comes, place your finely growing plants in your garden, and you will have flowers which will be a surprise and delight the coming season.

A. S. P., *South Coventry, Conn.*

#### DAHLIAS FROM SEED.

Some do not believe in buying Dahlia seeds, but if all should succeed as I have done they would think differently. The flowers were of a great variety of colors, and but one of them was single. They were admired by all. I had no idea that they would bloom so well the first year. All of them would have bloomed if the frost had held off a little longer. When I lifted the plants I found a nice lot of bulbs—great clusters to every stem.

M. M. H., *Whitestown, Pa.*

#### PANSIES IN MONTANA.

Mrs. F. A. REYNOLDS, who contributes the lines entitled "My Flowers," in this number, remarks: "The lines name the flowers we had last summer—quite a variety for a western ranch. But Pansies can't be beat anywhere; they are as large and brilliant here all summer as with you in early fall."



**CHRYSANTHEMUM NOTES.**

One always reads Mr. REXFORD's notes with pleasure, and those giving his season's experience in Chrysanthemum growing are especially interesting, voicing, as they probably do, the experience of many who have been disappointed with this flower. Some of Mr. REXFORD's conclusions seem to me quite incorrect, not to say hasty. The disappointments in my observation being usually the result of bad culture, not from inferior varieties sent out by the florists. In behalf of this much abused class of the community, who generally are "very good fellows," there is this to be said, that they early recognize the value of "Mums" as an addition to their somewhat limited list of plants, which would be likely to become very popular, and which could be rapidly and cheaply propagated. The additions of the last few years have excited much enthusiasm, and naturally, florists, in their pleasant sanguine manner, have advertised them for all they were worth, the mistake they have made being over-confidence in the cultural skill of a generation given to Scarlet Geraniums. Some very ordinary seedlings have, no doubt, been sent out, but if Mr. REXFORD's standard is no higher than the very ordinary varieties mentioned, there should be no difficulty in securing hundreds at least equally good.

As to the selection recommended from the seventy-five new and old varieties, it seems impossible to conceive of such a number from any list usually seen which could result so poorly—of those in detail—Golden Dragon is a weak growing kind, requiring special culture; Grandiflorum (a deep yellow, not white,) is too late for general culture; Madame C. Andriger, in hands of experts the best of the Japs, naturally grows eight to nine feet, and needs good culture to show its true character, the color is a rosy lilac, showing white only when badly grown. The others are good and are likely to prove satisfactory.

To one undertaking the culture of Mums the soundest advice would be to commence with the small flowering varieties, as Madame Marthe, flowers which show character under any kind of cultivation, and add the larger growing kinds as skill is acquired. There are a few "large kinds," for instance, Moonlight,

which show perfect blooms even if not disbudded, but usually large flowering Japs and minor kinds are very unsatisfactory and characterless if too many flowers are allowed to develop, giving rise to complaint, as in the case of sameness. Certainly it is a difficult matter to select a nice lot of Chrysanthemums from a list, but, as in many other garden matters, patience and study will be rewarded. It would be a pleasure to see Mr. REXFORD's list, and I should be pleased to send him a few kinds, which, being good, would convince him that if Mums are "not so much grown," they should be.

G.

**WILDER AND COLOMB.**

At ELLWANGER & BARRY's nursery establishment, about the middle of January, we found a large stock of Rose plants, occupying several houses, making their growth preparatory for propagation, all apparently in fine health. In the same house were a good number of Marshall P. Wilder, and another lot consisting of Alfred Colomb. Both of these lots had received the same treatment. They were budded plants grown on the same plat of ground, taken up at the same time, potted in the same way, and all other conditions had been the same. It needed but a glance at both to see that Marshall P. Wilder is much more free of growth. Mr. WILLIAM C. BARRY informed us that the same difference is seen in the plants when growing in the open ground, and also that the Wilder blooms more freely, being almost a perpetual bloomer.

On the same day, at the nursery of HOOKER & Co., we saw in one of the houses a lot of Wilder and another of Alfred Colomb, both of which had been treated exactly the same, and here, also, the Wilders were growing more freely than A. Colomb. That there is a difference of vigor of growth in favor of Marshall P. Wilder, there can be no question.

**STORM IN THE NORTHWEST.**

A blizzard storm and temperature below zero from eighteen to forty-five degrees, on the 13th and 14th of January, prevailed over Montana, Nebraska, Minnesota, Dakota and even Iowa and Wisconsin, in which, up to this time, it is known that more than two hundred peo-

ple were frozen to death, and many others injured for life; a large number of cattle were destroyed. It is improbable that this region will ever be well adapted to tree fruits, only hardy small fruits can be successfully cultivated. Being low they can be covered and protected.

#### APPLE TREE BLIGHT.

In a recent issue of the *American Rural Home*, J. C. ALLEN states that when the limbs of Apple trees blight, a wound in the bark and wood of the tree may be found, and that with a magnifying glass may be seen "an insect like an alligator or scorpion, often so small as to be difficult to see with the naked eye." He advises horticulturists to make the examination and verify his statement.

#### INSECTS--EARTHWORMS--"JACK."

Can you tell me, through the columns of your MAGAZINE, how to destroy a small winged insect closely resembling young flies? I have looked through several books, and they speak learnedly of thrips, scale insects and a quantity of others, but to one humble beginner this scientific discourse is not instructive. The insects I speak of look just like the small flies that light on fruit in the summer, when lying on the table uncovered. They seem to live in the soil, and fly away whenever I wet the earth.

Do earthworms in pots do any injury to the plants?

Can you tell me the botanical name of Jack-in-the-Pulpit?

A. W., *Poughkeepsie, N. Y.*

Correspondents have, at different times, mentioned in our pages the little flies here described, but in no case have they said that any injury was done to the plants by them. Gardeners do not recognize them as plant enemies. Exactly what they are some of our entomological students may be able to advise, and we

shall be pleased to hear from them on the subject.

Earthworms in pots make the soil close and tenacious, and often injure the roots of the plants. They are not desirable under these circumstances, and the pots should be rid of them by plunging them for a time in lime water—a half hour, or long enough for the water to thoroughly saturate all of the soil—and then withdrawing them and allowing the water to drain off.

The botanical name of Jack-in-the-Pulpit is *Arisæma triphyllum*.

#### LOBSTER CACTUS.

Will you please tell me, in your next MAGAZINE, how to manage the Lobster Cactus so as not to have them fall off at the first and second joints? Do they need as much water as other plants? Mine is in blossom, but the prongs that are not in bud or flower drop off.

MRS. S. B., *Flint, Mich.*

Perhaps the plant has not had sufficient drainage. The Lobster Cactus delights in a rich, well drained, sandy soil, and requires plenty of air and sunlight while growing. The plants should be kept moderately dry when not making growth.

#### NIGHT-BLOOMING CACTUS.

I have a Night-Blooming Cactus that I have had several years—nine or ten, I think, and it has never blossomed. It has grown quite large, having several stems two and three yards long. How old are they before they bloom? Should it have as much water as other plants?

E. A. B.

In winter but little water is needed, as the plant is in a dormant state, but when growth commences in spring and during the growing and blooming season it needs a regular but moderate supply of water.





# OUR YOUNG PEOPLE.

## JACOB JARDIN AND HIS BOYS.

"A compound fracture," said the surgeon, as he carefully examined Jacob Jardin's broken limb." Hope you've something laid by for a rainy day like this, for you'll not be out again soon."

Not enough to carry us over," groaned the poor man, "not even enough to pay you; and there's Jimmy's bad luck—seems like it never rains but it pours."

"Never mind about me—no charge shall stand against you for this. When your ship comes in some lucky day and finds me under the weather you'll remember me, I know. Don't try to talk now. When I get your limb fixed up and you are rested, you shall tell me all about this rain-pour."

Then the doctor sponged off his surgical instruments and his hands with an anti-microbe solution, and moistened with the same everything that would touch the limb until it should be enveloped in the plaster-of-paris casing, which would hold all snugly in place during the healing process.

The intelligent patient watched and studied each detail with the greatest interest. "I never had much education," he grunted out in his pain, "but have always read what I could; and now-a-days I see so much printed about microbes and bacteria and such like, that I often think if they're as dangerous as is made out that it's a wonder that the race of man isn't wiped out of existence."

The doctor laughed and, while carefully wiping and putting away his instruments, said; "These microscopic discoveries are the capital of the scientists, who naturally make as much out of it as possible. But there is no doubt that many lives are being saved by using precautions similar to the simple one used here in your case. Of course they are more necessary in hospital practice, but in an ugly fracture like yours, every means should be used to prevent suppuration and possible blood-poisoning. But here comes Jimmy, panting and scared, with news of your accident. I'll leave you now and call again shortly."

Jacob Jardin was a man of sturdy intellect and of sturdy principles—in short, a diamond in the rough. Of course he was thoroughly respected by all who knew him, including most emphatically his physician. A consciousness of such respect gave him more solid satisfaction, when he had little else to cheer him, than any amount of ill-gotten gains could have done; and this he tried to impress upon his boys.

When the doctor returned Jardin was ready to talk freely of the adverse conditions which beset his present situation. Of such parts of his talk as related to his boys, we too, may have the benefit.

"That boy, Jimmy," said he, "could never be any account at mill-work. He didn't hanker after machinery like Dan did. Now Dan, he showed his bent when he was just a baby-boy—somehow got the clock down on the floor one day, and had it all apart before any body knowed it to see what made it run. Well, he went on that way, and soon commenced using tools—all he could get—and worked in a little corner room that he called his shop, where there was a low-down pipe-hole into a chimney. Well, he was always tinkering in there, and the first thing his mother knew, he told her he had made a stove, and had a fire in it, to warm his shop."

"You can't make a stove," said she, "but you can easily enough burn us all up," and she hurried to the shop to see what the boy had been doing. There she found a funny stove and a roaring fire, but all quite safe. The stove had been made by slitting up one end of a large joint of pipe all around—the slits an inch in length, with spaces of an inch or more between. The ends thus made were turned outward, and each alternate one riveted to an old cook-stove lid for a bottom, with bricks placed beneath for a foundation. Two of the slits had been lengthened and the end between turned upward for the draft. The short, loose-fitting elbow was lifted off to put in coal, and there was a stove, sure enough, quite efficient for warming up anybody's shop for an odd job of work."

"That was certainly a very ingenious contrivance," said the doctor. That boy must be looked after. Where is he now?"

"In school. I try to keep him there, but since the mechanical department was added to the school, I fear he spends most of his time in the basement with the wheels and pulleys and turning-lathes. I've an idea he's one that'll get along without much looking after. But there's Jimmy, now—he does need to be looked after. He used to be as crazy about roaming off to the fields and woods, a studying of growing things and such like, as Dan was in his way; and it was a mighty sight more worrying to his mother and me; for many's the time he'd be gone all day, and when night came we wouldn't know where he was. Well, we had to break that up somehow; so I wrote to an old friend of mine, who was a florist and had no children, to know if he could give Jimmy a place in his business. The boy was soon sent for, and after several reports from him we felt that he'd found just the right place.

But that wasn't to last. His employer took it into his head to move himself and green-houses to the next town where natural gas could be used for supplying heat. When all was arranged and in perfect working order so that the heating should almost do itself, there was a terrible explosion and not a green-house was left. It occurred late one evening, after a holiday when but little work had been going on. No one was around but the florist himself, and he was picked up so badly injured, as to be unconscious. It was supposed that escaping gas had caused the trouble. It was a very sad business sir, very sad.

"It seems like, doctor, that by the time we get the Almighty's most powerful and destructive forces harnessed up and broken in to do our bidding, they're bound to turn and destroy us for our presumption."

That's one way of looking at it," replied the doctor, "but the same might be said of steam as a motor,—also of fire, which, if not well controlled, leaps into conflagration. While one tiny spark of it is sufficient to send skyward in thunderous explosion the magazines of half-a-score of frightful forces which are now being manufactured or eliminated from different materials. If we must use such

things we must take the consequences of carelessness and oversight. In our ambition to improve upon natural forces, as we find them, we are continually bringing destruction upon ourselves. Even water, when restrained by dams and levees and pent up in reservoirs, breaks out in floods and destroys life and property."

"Yes, doctor, it's studying about all this that makes me half believe that if Providence sees fit to let us go on this way we'll work out our own destruction at last. For awhile I thought the escape of so much natural gas from the earth might ease up the internal pressure so's to give a check to the earthquake business. But I reckon there wasn't much difference the past year, take the world over. Anyway it's no use speculating about things we don't understand; tho' a fellow can't help doing up a lot of thinking on his own hook, when so many new things are sprung on him one after another.

"But I was going to explain that Jimmy lost his good situation when that business was destroyed, and now he wanders around home here, with the winter all about us, earning nothing, and acts like he'd lost all interest in life."

"I am glad to know all this," replied the doctor, for one of my patients is about to build a conservatory, and a green-house to feed it ready for the coming season; and I know before asking, that Jimmy is the very boy he'll want—want's him now, I've no doubt, to secure cuttings and seeds of plants he's familiar with and get them well started. He'll find a place for them, too. I consider this as good as settled," said the jubilant doctor, rubbing his hands with much satisfaction. "But I mustn't let you talk any more, lest you get feverish."

"I'll get feverish if you don't let me finish now. I must tell you about Dave, the oldest boy."

"I often notice Dave,—he seems all right—stirring and full of business."

"Yes, he's that—can turn his hand to most anything 'cept mill-work—he hates that. You see, he wants to find some short-cut road to wealth—bound to be rich;—read a book once that told how some great fortunes had been made, and it set him on fire— but 'twas in him before. Right away he wanted to invest his little earnings in corn (which was low just then), so's to make something by



speculating. I told him the cost of storage and handling would eat up the profits, if there were any, leaving nothing for his time and trouble; and that rats, fire and thieves were enemies of stored grain. But it was hard to head him off. Next it was coal, then flour, then he'd surely buy sheep, and get them raised on shares;—but on figuring up, that was too slow. I told him over and over that the only true way to get honest money is to earn it dollar by dollar;—that it would hurt his reputation if it were known that he was so rattle-brained as to be already trying to speculate;—read him a statement that not more than one man in a thousand has the right make-up for a successful speculator; also an extract from one of Ben Franklin's newly published letters which says—'I imagine that what we have, above what we can properly use, is not ours, though we possess it.'

"But still, the boy was so restless and dissatisfied with his regular earning, that I got him to promise he'd make no venture without consulting me. Well, sir, only a week ago, he came to me much excited, bringing a letter which you'll find, doctor, in the bottom of that clock. Please get it and read it."

The letter of which the following is a copy, contained a slip with the address of C. L. James, box 27, Sixth avenue, New York City.

STRICTLY CONFIDENTIAL.

"DEAR SIR—My confidential traveling man who happened to be in your section not very long ago, has written me that he thinks you would be a very good man to handle my "bills." He says he does not think you are the kind of a man to betray a trust.

I will explain to you as a sensible business man, how you can make large sums of money safely and rapidly, without the least danger, and without your most intimate friends knowing anything about it.

In answering, sign your name and address on a separate piece of paper, as I have done, or else return the envelope in which this is sent, so that either way I will know who it is from. If you receive any other letters of this nature return them to me, as they will only be from my agents, and would have to go through my hands at headquarters."

"When I had read it," said Jardin, Dan

asked, excitedly—"Aint there a good chance for me?"

"'There's a good chance,' I said, 'to circulate counterfeit money and be sent to the penitentiary;—a good chance to make a rascal of yourself;—a good chance to disgrace your family, and break your mother's heart.'

"That's enough," cried Dave—"don't say any more. If I could get hold of the fellow who selected me for that kind of business, I'd thrash him." 'And I'd help you do it' said I."

"This reminds me," said the doctor, of a letter my wife handed me yesterday,"—taking it from his pocket—"you must show it to Dave." And he read as follows:

DEAR MADAM:—A gentleman friend of yours purchased two tickets in our Social Reform Lottery, directing that if lucky numbers were drawn they should be credited to you.

We have the pleasure of announcing that one of the tickets has drawn a prize of Five Hundred dollars (\$500). As you may wish to surprise your friends with your good fortune, you may send at once the name of bank upon which you'd prefer draft to be made, or name which Express Co. shall deliver money package to you;—at the same time enclosing Ten Dollars (\$10) for us to cover our own expenses in the business.'

Direct to G. Bonnicure & Co., Box 1002, Station E, New York City.

"My wife," laughed the doctor, as he concluded, said she had answered the letter, naming bank, and requesting that draft be made out for \$490 only,—the remaining ten dollars being deducted from amount due her in payment of all expenses incurred by Company," etc.

"That's a good one!" said Jardin, "they'll understand that she saw through their trick. What a pity that so many ignorant people throughout the country are swindled of their money by just such letters as these."

"Yes, yes, a sad pity;" echoed the doctor, as he pulled on his overcoat to leave. "Don't worry about Dave—he's got too much hard sense to go far astray with you to steady him, and has inherited too much honest grit to make a rogue. He'll soon work off some of his heat and haste and settle down into a man you'll be proud of yet. I only wish I had three



just such boys—just different enough to make things spicy. Believe me, you are a lucky man, Jardin. Tell Dave I said so. He'll stand by you 'till this accident is bridged over.

A father don't know sometimes, how much of a man is in his boy till something like this happens. You'll find I'm right."

MARIA BARRET BUTLER.

## FAMOUS AND CURIOUS TREES.

A few miles out from the City of Mexico stands a gnarled old Cypress, called the tree of *Triste Noche*. It was under this tree that Cortez sat and wept on that memorable *Triste Noche* when driven from the Mexican capital by the Indians. When the writer saw this tree, a few years ago, it was surrounded by a neat iron fence.

Another interesting tree to be seen in Mexico is found at Chapultepec, that delightful summer resort of the Mexican rulers from the time of the Montezumas. The tree in question stands a few feet from the entrance way, and is draped with the lovely Spanish moss. It is also a Cypress of immense size, so large is it that a party of thirteen could just reach around it. It is known as the tree of Montezuma, and no doubt he often sat under its shade when rusticating in this lovely spot.

The Charter Oak, near Hartford, Connecticut, which was blown down, in 1856, is another famous tree. It was in this tree that the charter granted to the Connecticut colony, in 1662, was hidden twenty-four years later, when the royal government demanded it back again. The assembly at Hartford had finally decided to give it up, and the people were crowding around to take one last look at the precious document—the guarantee of so many liberties—when suddenly the lights were extinguished, and when relighted the charter could not be found. A William Wadsworth had taken and hidden it in this tree.

Then, there was the old Liberty Tree, in Boston, which stood near what is now the corner of Boylston and Washington streets, under which the Sons of Liberty, a number of the colonists who had banded themselves together to resist English tyranny, met just before the Boston massacre.

The Great Elm, on Boston Common, is another famous tree.

And still another was a large Elm that

once stood near Philadelphia, under which William Penn met the Indians and made a treaty with them, "the only treaty never sworn to, and never broken," and no wonder it was never broken, for the honest Quaker was always fair and just in his dealings with the Indians, and so won their love and esteem that in all the wars between the Indians and the colonies not a drop of Quaker blood was ever shed. What a contrast is this to the dark picture in our national history, of the whites stealing the Indian's land and driving him from State to State, not only in colonial times, but even in our own day. This Elm was carefully guarded until 1810, when it was unfortunately blown down. A monument now marks the spot.

But besides historical trees there are many others that attract our attention from their great size or curious properties. Among the former are the wonderful trees of California, some of which are from three to five hundred feet in height and twenty to twenty-five feet in diameter. A section of one of these trees was at one time exhibited in San Francisco, in which was a room carpeted, and containing a piano and seats for forty people; a hundred and forty children once filled the room without crowding.

Among curious trees may be mentioned the Cow tree, or *Palo de Vaca*, of the Cordilleras, which grows at a height of three thousand feet above sea level. It is a lofty tree with laurel-like leaves, and though receiving no moisture for seven months of the year, when its trunk is tapped a bountiful stream of milk bursts forth. It flows most freely at sunrise, when the natives may be seen coming from all directions with pans and pails to catch the milk, which is said to have a pleasant sweet taste, but becomes thick and yellow in a short time and soon turns into cheese.

Then there is the Bread Fruit tree, one of the most curious as well as useful



trees of the Pacific islands. The fruit, which is about the size of a Cocoonut, should be gathered before it is ripe, and be baked like hoe-cake. When properly cooked it resembles and tastes like good wheat bread.

Another very curious tree is the Candle-nut tree, of the South Sea Islands, the fruit of which is heart-shaped and

about the size of a Walnut. From the fruit is obtained an oil used both for food and light. The natives of the Society Islands remove the shell and slightly bake the kernels, which they string on rushes and keep to be used as torches. Five or six in a Screw Pine leaf are said to give a brilliant light.

JOSEPHINE M. S. CARTER.

## THE RIVER.

A streamlet, set in bands of green,  
A laughing, bubbling thing,  
Came trickling down two rocks between,  
Forced by a hidden spring.

It little current had at first,  
But rolled, because it must,  
From rock to rock, unskilled, unversed,  
It took all things on trust.

The tall trees on the mountain's brow,  
To shield the waif, bent low;  
But it ne'er mirrored leaf nor bough  
In its impetuous flow.

A thing of life, it bounded o'er  
Their roots to reach the vale—  
All barriers past, it sought no more  
Those dizzy heights to scale.

And on, and on, the wavelets flew,  
Now fed by hillside streams,  
A streak of silver tinged with blue,  
Reflecting golden beams.

Now, farther down, they gleam and dance,  
And murmur through the sedge,  
And here and there we get a glance  
Of minnows by the edge.

Here Water Flags grow rank and tall,  
And laughing children go  
To dig the fragrant rootlet small,  
And watch the bright waves flow.

'Twixt valleys green they roll away,  
And swell and broaden out,

And catch the shadows all the day,  
And scatter spray about.

The scenery is no more wild,  
But opens on a plain;  
And now on either bank are piled  
The sheaves of golden grain.

The reaper's song is in the land;  
Here Ruth might come and glean,  
For, Boaz-like, the good man's hand  
Forgets to gather clean.

The stream here cannot idly stay,  
But grandly sweeps along;  
Its surface hath more quiet play,  
Its current deep and strong.

Through teeming plains and valleys brown,  
Rich in each goodly gift,  
It runs until it cleaves a town  
Where domes tall spires uplift.

And so it moves on to the sea,  
Fed by a thousand rills,  
Nor cares to know its waters free  
Have turned a hundred mills,

'Till in its harbor anchors weigh,  
And ships go up and down,  
And bring thereto, and bear away,  
The commerce of the town.

And now it meets with changing hues,  
The broad waves of the sea,  
Its individual self to lose  
In their immensity.

MRS. M. J. SMITH.

## EDITOR'S MISCELLANY.

### GARDEN AND FOREST.

A new weekly journal with the title of *Garden and Forest*, devoted to forestry and horticulture, is to appear the present month, (February.) It has been projected, and is to be edited by Professor C. S. Sargent. Several able assistants will share the work. It is to be published at New York, by the Garden and Forest Publishing Company. Subscription price \$4 a year. We trust it may have a patronage commensurate to the talent employed upon it. Horticultural literature appears to be a fascinating venture, judging from the numerous trials that have been made in the last few years; but, by the same standard, it is apparently as treacherous as fascinating. The great ability with which this new journal is to be conducted should insure it a long lease of life.

### DEATH OF CHARLES H. MAROT.

In the last issue of the *Gardener's Monthly* announcement is made of the death, in the 62d year of his age, of the publisher, Charles H. Marot, which occurred on the 21st of December, at his home in Philadelphia. Mr. Meehan, the editor, mentions his having been associated with him for twenty-five years, and also informs his readers that there will be no delay in the prompt appearance of the *Monthly*.

### ILLNESS OF DR. ASA GRAY.

We are pained to inform our readers that Dr. Gray, the botanist, received a stroke of paralysis in December, and at the time this notice is written (January 12) his condition is critical, and fears for the worst are entertained.